

AGENDA
Inland Wetland Agency
Regular Meeting
Tuesday, January 3, 2012
Council Chambers, Audrey Beck Building

Call to Order: 7:00 PM

Review of Minutes of Previous Meetings and Action Thereon:

12.05.2011 - Regular Meeting
12.13.2011 - Field Trip

Communications:

Conservation Commission:
GM monthly business memorandum

Public Hearings:

7:00 p.m.

W1488 - DEP Legislation and Regulations Advisory - minor changes to statutes

7:05 p.m.

W1490 - Eastbrook Mall - 95 Storrs Rd - brook crossing, work in regulated area

Old Business:

W1489 - Town of Mansfield - Woodland Rd - relocate drainage at Ashford Town Line

New Business:

W1491 - Cumberland Farms - 643 Middle Turnpike & 1660 Storrs Road

Reports of Officers and Committees:

Other Communications and Bills:

CT Wildlife- November/December 2011
December 2011 CFL News
12-27-11 Letter from D. Morse & J. Hall

Adjournment:

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DRAFT MINUTES
MANSFIELD INLAND WETLANDS AGENCY
Monday, December 5, 2011
Council Chambers, Audrey P. Beck Municipal Building

Members present: J. Goodwin (Chairman), M. Beal, R. Hall, K. Holt, G. Lewis, P. Plante,
B. Pociask K. Rawn, B. Ryan
Alternates present: B. Chandy, V. Ward
Staff present: Grant Meitzler (Wetlands Agent)

Chairman Goodwin called the meeting to order at 7:02 p.m.

Minutes:

11-07-2011 - Regular Meeting- Hall MOVED, Ryan seconded, to approve the 11-07-11 minutes as written. MOTION PASSED UNANIMOUSLY.

11-21-2011 - Special Meeting- Pociask MOVED, Rawn seconded, to approve the 11-21-11 minutes of the special meeting as written. MOTION PASSED with all in favor except Beal, Hall and Ryan, who were disqualified.

11-21-2011 - Special Joint PZC & IWA Meeting- Pociask MOVED, Rawn seconded, to approve the 11-21-11 minutes of the special joint PZC & IWA meeting as written. MOTION PASSED with all in favor except Beal, Hall and Ryan, who were disqualified.

Communications: The 11-30-11 Wetlands Agent's Monthly Business report was noted.

Old Business:

W1488 - DEP Legislation and Regulations Advisory - minor changes to statutes:
Tabled pending January 3, 2012 Public Hearing.

Review of IWA By-Laws: Tabled

New Business:

W1489 - Town of Mansfield - Woodland Rd - relocate drainage at Ashford Town Line
Ryan MOVED, Holt seconded, to receive the application submitted by the Town of Mansfield (File W#1489) under the Wetlands and Watercourses Regulations of the Town of Mansfield for the relocation of 180 feet of drainage pipe to eliminate downstream erosion, on property located at the Mansfield/Ashford Town Line on Woodland Road, as shown on a map dated 11-30-11 and as described in application submissions, and to refer said application to staff and Conservation Committee, for review and comments. MOTION PASSED UNANIMOUSLY.

W1490 - Eastbrook Mall - 95 Storrs Rd - brook crossing, work in regulated area
Ryan MOVED, Holt seconded, to receive the application submitted by Eastbrook F, LLC (File W#1490) under the Wetlands and Watercourses Regulations of the Town of Mansfield for a brook crossing and work in regulated areas, on property located at 95 Storrs Road, as shown on a map dated 12-1-11, and as described in application submissions, and to refer said application to staff and Conservation Committee, for review and comments and to set a Public Hearing for 1-3-12. MOTION PASSED UNANIMOUSLY.

Field Trip: scheduled for December 13th at 1:30 p.m.

Communications: Noted.

Adjournment: Goodwin declared the meeting adjourned at 7:09 p.m.

Respectfully submitted,
Katherine Holt, Secretary

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DRAFT MINUTES

MANSFIELD PLANNING AND ZONING COMMISSION
INLAND WETLANDS AGENCY
CONSERVATION COMMISSION
FIELD TRIP
Special Meeting
Tuesday, December 13, 2011

Members present: J. Goodwin, M. Beal, K. Holt (items 3 & 4), B. Ryan, K. Rawn
Staff present: L. Painter, Director of Planning and Development
C. Hirsch, Zoning Agent
Others present: S. Lehman, Conservation Commission

The field trip began at 1:30 p.m.

1. Town of Mansfield - Woodland Rd - relocate drainage at Ashford Town Line, File # W1489
Members observed current conditions, locations of proposed work and site characteristics. No decisions were made.
2. CL&P Easement, Hawthorne Lane- Modification to Conservation Easement, PZC File#1177
Members were met by property owners Wayne Hawthorne and Ryan Hawthorne and Charlie Mead from CL&P. Members observed current locations of CL&P lines within their easement and the location of the subdivision conservation easement. Site and neighborhood characteristics were noted. No decisions were made.
3. Eastbrook Mall - 95 Storrs Rd - Building Addition and New Freestanding Building, IWA File W1490 and PZC File #1307
Members were met on site by Jeff Shamas, BL Companies. Members observed current conditions, locations of proposed work and site characteristics. No decisions were made.
4. J. James - 28 Old Kent Rd - Special Permit Application for Fill, PZC File #1306
Members were met on site by J. James, owner and Attorney Samuel Schrager. Members observed current conditions and site characteristics. No decisions were made.

The field trip ended at approximately 3:35 p.m.

Respectfully submitted,

K. Holt, Secretary

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Town of Mansfield
CONSERVATION COMMISSION
Meeting of 21 December 2011
Conference B, Audrey P. Beck Building
(draft) MINUTES

Members present: Robert Dahn, Neil Facchinetti, Quentin Kessel, Scott Lehmann, John Silander, Frank Trainor. *Members absent:* Aline Booth (Alt.), Joan Buck (Alt.), Peter Drzewiecki. *Others present:* Interstate Reliability Project: Jeff Buckley (Burns & McDonnell Engineering), Jeffrey Martin (NUSCO), Tony Mele (NU Transmission), John Yarbrough (Carmody & Torrance, LLP); Hawthorne Lane residents: Chris Duers, Wayne Hawthorne, Richard ("Scott") Welden; Grant Meitzler (Wetlands Agent), Linda Painter (Town Planner).

1. The meeting was **called to order** at 7:34p by Chair Quentin Kessel. The Commission agreed unanimously to reorder and expand its agenda to accommodate guests and two items of new business.

2. The draft **minutes of the 16 November meeting**, with the excision of the second sentence of item 5, were approved.

3. Interstate Reliability Project.

a. CL&P has updated its 2008 proposal for a second 345kv transmission line to improve the electric power grid in S. New England. Its preferred alternative remains running the new line through NE Connecticut in the existing right-of-way (ROW) using a second column of poles. Use of monopoles in some sections of Mansfield would slightly reduce the amount of new clearing required in the ROW. The option preferred by the Commission (running the line parallel to I-90 & then down to Manchester) was rejected as more costly (\$700M with greater environmental impact vs. \$532M). Somewhat more costly variations on CL&P's preferred option include placing some sections of the line in Mansfield underground and avoiding Mansfield entirely (at Windham's expense). For details, see Linda Painter's report:

www.mansfieldct.gov/1904/1932/16188/interstate_reliability_project_report.pdf

b. Responding to questions from the Commission, representatives of CL&P indicated that the project aims (1) to eliminate bottlenecks in moving power to S. New England, a net importer of electricity, and (2) to increase the grid's reliability by providing redundancy through a second 345kv circuit. Higher single-pole structures carrying both the old and new 345kv line (which the Commission had suggested in order to avoid additional clearing in the ROW) might achieve (1) but not (2), since failure of a single structure would take out both circuits.

c. **PZC #1177 (Hawthorne La, Conservation Easement).** Residents of Hawthorne Lane have proposed that CL&P slightly 'cut the corner' of its ROW at the Hawthorne La cul de sac so that the buffer of trees in front of their homes does not disappear. This would require liquidating 0.32 acres of a Town conservation easement (and the trees thereon). In exchange, the residents have agreed to offer the town a conservation easement on 0.64 acres of wooded land at the rear of two of their lots. This slight re-routing is not part of CL&P's preferred alternative, but it will be included as an option in its application to the Connecticut Siting Council, provided the Town agrees to the easement swap. After some discussion, the Commission agreed unanimously (**motion:** Lehmann, Dahn) that it had no objection to the proposed exchange of conservation easements. CL&P representatives and Hawthorne La residents left the meeting.

4. IWA referrals. Lehmann visited these sites on the 13 December IWA Field Trip; his report is attached.

a. **W1489 (Town of Mansfield, Woodland Rd).** To address an erosion problem, the Town proposes to redirect drainage from a catchment in Ashford to a wooded area in Mansfield above a wetland, via 180 feet of 18-inch pipe with a level spreader at its egress to control erosion. The Commission does not expect any significant wetlands impact from this project as proposed (**motion:** Lehmann, Trainor; approved unanimously).

b. **W1490 (Eastbrook Mall, 95 Storrs Rd).** Two projects are proposed at Eastbrook Mall: (1) a 14.5K ft² addition to the N end (TJ-Max end) of the building and (2) a pad for a 3.2K ft² building on the grassy triangle at the NE corner of the property between Rt. 195 and Sawmill Brook. (1) requires cutting the existing access road around the N side of the mall into the hill that separates it from Sawmill Brook; (2) requires access from the mall to the new building pad by a bridge over Sawmill Brook. After some discussion, the Commission agreed on the following **motion** (Facchinetti, Silander; all in favor save Dahn, who abstained because he has done work for the developer):

(A) The Commission is concerned about runoff into Sawmill Brook from the Eastbrook Mall parking lots. To provide some protection for the brook, developers of the proposed expansion should eliminate at least as much impervious cover (IC) southwest of the brook as is created by the expansion; in particular, the eliminated IC should be replaced with a broad vegetated berm on the southwest side of the brook. (B) The brook should be protected from sedimentation during construction by adequate erosion-control measures. (C) Realigning the north access road will bring it quite close to the brook, and it is not possible, on the basis of the information provided, to rule out a significant impact on the brook.

c. **W1491 (Cumberland Farms, 4 Corners).** As this application is essentially a resubmission of W1483, the Commission saw no need to revise its comment of 20 July 2011.

5. Executive Session. At approximately 8:50p the Commission voted unanimously (**motion:** Dahn, Facchinetti) to go into executive session to discuss a property acquisition issue; Painter and Meitzler remained in attendance. The executive session ended and the regular meeting resumed at 9:00p (**motion:** Trainor, Dahn; approved unanimously).

6. UConn Water Supply Source Study. UConn has added relocating Fenton Well A farther from the Fenton River to the list of alternative water sources being evaluated.

7. Heidinger Letter. A 14 December letter to the Commission from Kurt Heidinger points out that, in the view of the Attorney General in 2000, UConn (as a state agency) does not qualify as a water company and its operations are therefore not subject to DEEP oversight under the state's aquifer protection program. The Commission agreed to pass Mr. Heidinger's letter along to the Town Council with the recommendation that it address concerns about the lack of legal authority for regulating UConn's use of the Willimantic and Fenton River wellfields.

8. Dark Skies. The Conservation Commissions of Mansfield, Ashford, & Willington will sponsor a showing of "The City Dark," a documentary film on light pollution, at 7:00p, 03 February 2012 at E.O. Smith. A representative from the International Dark Sky Association will attend to answer questions.

9. North Hillside Rd. The Final EIS on this project to connect UConn to Rt. 44 has been issued. The deadline for comments is 23 January 2012.

8. Adjourned at 9:13p.

Scott Lehmann, Secretary, 27 December 2011.

Attachment: Report on 12/13/2011 IWA Field Trip (Scott Lehmann, 12/14)

W1489 (Town of Mansfield, Woodland Rd). What was a seasonal front-yard pond on several lots in Ashford just north of the Mansfield town line is now drained via a catchment & pipe S into Mansfield. At some times of year water gushing from the pipe forms a small stream that erodes a horse pasture off Woodland Rd. To avoid this, the Town proposes to re-direct the water from the catch basin to a wooded area to the SE through 180' of 18" pipe. The water would exit the pipe onto a level spreader about 40' above a wetland. Assuming the drained water isn't contaminated with lawn chemicals, I don't anticipate any significant wetland impact from this project.

PZC1177 (Hawthorne La, Conservation Easement modification). Residents of Hawthorne La will lose a treed buffer between their homes and CL&P's power lines if the Interstate Reliability Project proceeds as proposed: more of CL&P's right-of-way on the N will be cleared for a second column of transmission lines. To save the buffer, the residents have proposed a small alteration in the right-of-way, which would run it through a 0.35 acre triangle of woods on which the Town holds a conservation easement (the trees -- including a large white pine -- on this parcel would be cleared for the transmission lines).

When the proposal came before the Commission in July 2010, we suggested that the Town acquire a conservation easement on the treed buffer as a quid pro quo. However, this turns out to be legally very complicated (an Attorney Enrichment Program). The residents have now proposed exchanging the Town's 0.35 acre conservation easement for one on 0.35 acres of woods at the rear of one of their lots, abutting an existing Town conservation easement. Field Trip participants located the area on a map but did not walk back to it.

Lifting the encumbrance on the wooded triangle represented by the Town's conservation easement is a necessary but not sufficient condition for relocating the right-of-way. If the easement is out of the way, CL&P is prepared to propose adjusting the right-of-way accordingly to the Connecticut Siting Council (under a provision allowing such adjustments for EMF mitigation). However, the cost of relocating the existing lines is on the order of \$1M, which would be passed along to rate-payers, and the Siting Council may not approve.

W1490 (Eastbrook Mall, Storrs Rd) Two projects are proposed: (1) an addition to the TJMax-end of the mall that would cover the parking area and some of the roadway to the N (the new roadway would be cut into the hill separating the mall from Sawmill Br), and (2) a pad for a small building in the grassy triangle of land between Sawmill Br and Rte 195, to be accessed by a bridge over Sawmill Br and a cut to Rte 195. The relocated road would be quite close to the brook at its E end, but they would still be separated by a rise. A bridge over the brook, here channelized, would further compromise it, in my view. It is not clear to me why a small building could not be located in the present parking lot, which was half empty when we visited, less than two weeks before Christmas.

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Memorandum:

December 27, 2011

To: Inland Wetland Agency
From: Grant Meitzler, Inland Wetland Agent
Re: Monthly Business

W1419 - Chernushek - hearing on Order

- 3.10.09: The hearing on the Order remains open and should continue until the permit application under consideration is acted upon.
(The Order was dropped on approval of the application required in the Order.)
- 4.30.09: Former rye grass seeding is beginning to show green. I spoke with Mr. Chernushek this afternoon who indicated health problems that delayed his starting but indicated he will be working this weekend. I will update on this Monday evening.
- 5.26.09: A light cover of grass growth has come in. Mr. Chernushek indicates health problems and two related deaths have delayed his start of work since the permit approval was granted. It appears that some light work has started. He has further indicated that he will start a vacation on June 22, 2009 to finish the work.
- 6.13.09: Work is underway.
- 6.21.09: Bulldozer work has been completed - finish work remains. The additional silt fencing has been placed along the northerly wetlands crossing, and the additional pipe under the southerly crossing has been installed. Remaining work includes finish grading along edges, spreading stockpiled topsoil, and establishing grass growth.
- 7.01.09: I spoke with Mr. Chernushek who indicated he expects work to be completed by September 1, 2009. (Site photo attached).
- 9.03.09: Mr. Chernushek has been working on levelling and grading. The formerly seeded areas have become fairly thick growth surrounding the central wet areas. He has further indicated that with the combination of weather and the slower moving of earth with the payloader compared to the earlier rented bulldozer has led him to contact contractors for earth moving estimates which have not yet been received. The site is not yet finished but has remained quite stable.
- 9.12.09: I met with Mr. Chernushek today and discussed again what his plans are for stabilizing this work site.
- 10.01.09: Mr. Chernushek indicated he has not heard back from the contractor he had spoken with about removing material, and is in progress of contacting others. In discussion is removal of material from the site either within the 100 cubic yard limit or obtaining a permit for such removal.
- 10.28.09: Mr. Chernushek has indicated he has made arrangements with DeSiato Sand & Gravel to remove 750 cubic yards of material. Staff is in the process of clarifying permit requirements.

W1445 - Chernushek - application for gravel removal from site

- 11.30.09: Packet of information representing submissions by Mr. Chernushek, Mr. DeSiato and myself is in this agenda packet as Mr. Chernushek's request for modification.
- 12.29.09: Preparation of required information for PZC special permit application is in progress. Tabling any action until the February 1, 2010 meeting is recommended.

- 1.12.10: 65 day extension of time received.
- 2.18.10: No new information has been received.
- 2.25.10: This application has been **withdrawn**.
- 6.30.10: As viewed from the adjacent property, the upstream and downstream areas have grown to a decent protected surface. I did not see indication of sediment movement.
- 10.26.10: A sale of the East portion of the Chernushek property has been in negotiation.
- 12.27.10: The property exchange has been completed. The owner is now the neighboring property owner Bernie Brodin. He has indicated his intention to stabilize the area as weather permits.
- 4.25.11: Mr. Brodin indicates he is starting with grading and spreading hay and seed to stabilize disturbed areas.

Mansfield Auto Parts - Route 32

- 12.23.10: Inspection - no vehicles are within 25' of wetlands.
 - 1.07.11: Inspection - no vehicles are within 25' of wetlands.
 - 1.20.11: Vehicle storage areas are snowed in and inaccessible.
 - 1.26.11: Snows remain, although some clearing has been done I could not count on being able to get out.
 - 2.24.11: Inspection - no vehicles are within 25' of wetlands.
 - 3.09.11: Inspection - no vehicles are within 25' of wetlands.
 - 3.22.11: Inspection - no vehicles are within 25' of wetlands.
 - 4.25.11: Inspection - no vehicles are within 25' of wetlands.
 - 5.17.11: Inspection - no vehicles are within 25' of wetlands. Mr. Bednarczyk's estimate is that approximately 100 tires per month are being removed from the site.
 - 6.14.11: Inspection - no vehicles are within 25' of wetlands.
 - 7.12.11: Inspection - no vehicles are within 25' of wetlands.
 - 8.04.11: Inspection - no vehicles are within 25' of wetlands.
 - 9.13.11: Inspection - no vehicles are within 25' of wetlands.
 - 11.03.11: Inspection - two vehicles are within 25' of wetlands. Vehicle doors and a camper or trailer are stored in the extreme rear lot not approved by zoning for use.
 - 11.30.11: Inspection - two vehicles are within 25' of wetlands. Employees indicate cars will be moved soon. Payloader repair parts are to be there later today and cars will be moved as soon as parts are installed. Owner indicated in earlier discussion that the doors would be moved. Rate of tire removal has increased with a company in Massachusetts removing them by truckload. At time of this discussion (about a week ago) nearly 2,000 tires had been removed from the lot by the railroad tracks.
 - 12.07.11: Inspection - two vehicles are within 25' of wetlands. Payloader repairs not yet completed. Weekly inspections will be made until the two vehicles and doors are moved.
 - 12.27.11: Inspection - 1 vehicle within 25' of wetlands - owner indicates it will be moved this week. Payloader is back in operation. Owner indicates doors in "rear" lot will be moved this week. Large number of tires have been moved from lot by RR tracks - approximately 65% of tires have been removed.

Memorandum:

December 28, 2011

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: W1488 - Town of Mansfield - Proposed Regulation Revisions

These proposed revisions to our regulations result from two Acts of the state legislature that revised wetlands requirements. The statutes took effect on July 1, 2011 and these revisions are as follows:

Section 4.1 B - This revision only changes subsection numeration to A and B. There is no other change to this section.

Section 4.1 G through K - This revision adds a subsection G which allows withdrawal of water for fire purposes, and renumbers the following subsections. Section K adds a "rebuttable presumption" for the installation of dry hydrants.

The "rebuttable presumption" phrase places this dry hydrant exclusion from permit requirements only if:

- the pipe is unpressurized
- is readily accessible for fire apparatus from a proximate public road
- provides for the withdrawal of water by suction to such fire apparatus, and
- is permanently installed into an existing lake, pond or stream that is a dependable source of water

Section 7.9 - provides that any permit issued before 7.01.2011 that has not expired prior to May 9, 2011 shall be valid for no more than 14 years.

Section 11.7 - Any permit issued by the Agency before 7.01.2011 that has not expired before May 9, 2011 shall be valid for a period of not less than nine years after the date of approval.

Because these statutes are already in effect we are bound to operate according to them regardless of any conflicting section in our regulations.

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Memorandum:

December 27, 2011

To: Inland Wetland Agency
From: Grant Meitzler, Inland Wetland Agent
Re: W1490 - Eastbrook Mall - addition & satellite building

plan reference: bearing latest revision date December 20, 2011
Traffic Impact Study October 2011
Stormwater Management Study ... December 2011

This application proposes extending the front section of Eastbrook Mall 82'8" on the north end of the existing mall building. Additionally, a separate building is proposed on land located between the Sawmill Brook and Route 195 with a new "right turn only" driveway to/from Route 195 and a new driveway crossing over Sawmill Brook connecting the two sites.

The proposal appears subject to the DEP Fisheries, FEMA flooding, and possibly ConnDOT drainage requirements.

The wetlands here are limited to the Sawmill Brook and its associated wetlands. More information is needed for this brook:

1. Mansfield Regulations require mapping of wetlands within 150 feet of proposed work,

This wetlands mapping has been done on the mall property but not for 150' regulated areas on adjacent property to the north owned by Hayes-Kaufman. At the northeast corner of the proposed mall addition, proposed work is obviously very close to the edge of Sawmill Brook. The nature of this area is not clear in the application materials.

Appropriate commentary from a soil scientist is needed.

This northerly section of Sawmill Brook is heavily laden with sediment including a large sandbar that appears to be partially obstructing flow to the existing driveway drainage pipes. The existing paved leak-offs along the ease edge of the mall parking lot and Sawmill Brook are deteriorated and should be upgraded.

2. The drainage calculations submitted show a modest decrease in flow from the building and parking lot areas directly involved with the mall addition through the use of under surface storage within parking lot and drive areas.

No drainage calculations have been submitted for the Sawmill Brook. Specific calculations are needed to show that the 100 year storm protection against Route 195 flooding and flooding of the satellite building area are maintained.

The existing configuration dating from the 1973/4 construction of the mall had provided a 100 year storm flow design that included a raised dike to contain flow, and a piped system catching water flow from Route 195 and directing it to Sawmill Brook south of the

main mall entrance drive. This was a part of the ConnDOT permit requirements for the original mall permit. There is an error in the information provided on the present plan. This appears due to lack of elevation of the pipe invert for the last catch basin in the pipe system connecting Route 195 drainage to the Sawmill Brook.

3. The application submissions and Dec. 20, 2011 plans indicate the proposed drive across Sawmill Brook will match the 7'x 11' squash pipe size under the existing main driveway. However, there is also the indication that a standard DEP Fisheries requirement of filling the base of pipes to 12 inches with natural stream bed material. This additional material will decrease the actual area (and capacity) of the pipes under the drive by approximately 8 sq.ft. of area.

The Sawmill Brook is shown as being subject to FEMA Flood mapping permit requirements. No drainage calculations have been submitted for this crossing.

4. The Natural Diversity Database mapping indicates this area is within one of the shaded circle areas indicating rare or endangered species. The applicant should be referred to the DEP Natural Diversity Database office.

Continuation of this public hearing is recommended.

Memorandum:

December 28, 2011

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: W1489 - Town of Mansfield - Woodland Rd - drainage relocation

plan reference: dated 11.30.2011

This application is for work required to relocate an existing drain on Woodland Rd at the Ashford town line. This drain was installed to remove water flooding two yards in Ashford during the Spring.

Although the existing pipe does work for relief of the ponding, it now causes erosion for a downstream owner in Mansfield. The property at 500 Woodland Rd has a horse grazing area that has become subject to erosion due to the existing pipe's outflow.

This work will move the outflow to the east discharging to a level spreader located approximately 40 feet from a wetland. Water then drains to the south eventually becoming part of the flow in Fisher's Brook. The level spreader has been used to dissipate the energy of the flow and minimize erosion at the outlet area.

The pipe outlet and construction have been kept 75' away from a drilled well located in the yard of 526 Woodland Rd.

Notices have been sent to each of the abutters. Notice has also been given to the Town of Ashford and the Windham Waterworks.

No work will proceed until each owner has agreed to the work being done.

Wetlands Draft Approval Motion for:

Re: W1489 - Town of Mansfield

_____ moves and _____ seconds, to approve the application for wetlands file W1489, for relocation of street drainage to the rear of 526 Woodland Rd on land of Moore as depicted on a plan dated 11/30/2011, with 180 feet of 18 inch pipe and level spreader outlet protection, portions of which drainage system are located within 150 foot regulated areas, and as described in presentations made to the Inland Wetlands Agency at its 12/07/2011 meeting, and as viewed on a field trip on 12/13/2011.

This action is based on a finding of no significant impact, and is conditioned on the following provisions being met:

1. All erosion and sediment controls (as shown on the plans) shall be in place prior to construction, maintained during construction, and removed when disturbed areas are completely stabilized.
2. This approval does not become effective until signed approvals for the work are received from the property owners.

This approval is valid for a period of five years (until January 3, 2017), unless additional time is requested by the applicant and granted by the Inland Wetlands Agency. The applicant shall notify the Wetlands Agent before any work begins, and all work shall be completed within one year. Any extension of the activity period shall come before this Agency for further review and comment.

Memorandum:

December 28, 2011

To: Inland Wetland Agency

From: Grant Meitzler, Inland Wetland Agent

Re: New Business for January 3, 2012 meeting

W1491 - Cumberland Farms - Rte 195 & 44 - convenience store and gas sales

	yes	no
	-----	-----
fee paid	x	
certified receipts	to come in	
map dated	12.01.2011	

This application is for replcement of both Kathy John's Restaurant and the Bates service station with a combination Cumberland Farms convenience store and gasoline sales.

A small area of the proposed work is within 150' regulated areas. No work is proposed directly in wetlands.

Receipt and referral tot he Conservation Commission is appropriate.

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APPLICATION FOR PERMIT
MANSFIELD INLAND WETLANDS AGENCY
4 SOUTH EAGLEVILLE ROAD, STORRS, CT 06268
TEL: 860-429-3334 OR 429-3330
FAX: 860-429-6863

FOR OFFICE USE ONLY

File # 1491
W
Fee Paid \$310-
Official Date of Receipt 12-9-11

Part A – Applicant

Name Cumberland Farms, Inc.

Mailing Address c/o Joseph P. Williams, Esq., Shipman & Goodwin LLP,

One Constitution Plaza, Hartford, CT Zip 06103-1919

Telephone-Home n/a Telephone-Business 860-251-5127

Title and Brief Description of Project

Cumberland Farms gas station and convenience store.

Location of Project 643 Middle Turnpike and 1660 Storrs Road, intersection of
Routes 44/195/320.

Intended Start Date February 2012

Part B – Property Owner (if applicant is the owner, just write "same")

Name See Property Owners of Record attached hereto as Exhibit A.

Mailing Address _____

_____ Zip _____

Telephone-Home _____ Telephone-Business _____

Owner's written consent to the filing of this application, if owner is not the applicant:

Signature See letters consenting to this application attached hereto as Exhibit B. date _____

Applicant's interest in the land: (if other than owner) _____ Optionee _____

Part C – Project Description (attach extra pages, if necessary)

- 1) Describe in detail the proposed activity here or on an attached page. (See guidelines at end of application – page 6.)

Please include a description of all activity or construction or disturbance:

- a) in the wetland/watercourse
- b) in the area adjacent to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is off your property
- a) No work proposed in wetlands.

b) Wetland A U.R.A. – Construction of small amount of concrete sidewalk but primarily earthwork related to construction of a bioretention area to provide stormwater quality treatment for site stormwater prior to release to Wetland A.

Wetland B U.R.A. – Construction of bituminous concrete parking areas, concrete sidewalks and proposed convenience store building as well as associated utility trenching and installation. Though the extent of proposed disturbance is greater within the Wetland B 150' upland review area, no stormwater from the site is tributary to this wetland.

- 2) Describe the amount or area of disturbance (in square feet or cubic yards or acres):

- a) in the wetland/watercourse
- b) in the area adjacent to (within 150 feet from the edge of) the wetland/watercourse, even if wetland/watercourse is off your property

a) None.

b) Wetland A U.R.A. = 0.1 acre ; Wetland B U.R.A.= 0.7 acre. Please note that a small part of the altered area within the Wetland A U.R.A. and a larger part of the altered area within the Wetland B U.R.A. will be altered by removing existing pavement to replace it with vegetated surfaces.

- 3) Describe the type of materials you are using for the project: Bituminous and Portland cement concrete curbs and pavements, sand, gravel, crushed stone, HDPE and PVC pipe, wood frame building.

- a) include **type** of material used as fill or to be excavated on-site material.
- b) include **volume** of material to be filled or excavated sitework goal is to balance on-site cut and fill.

- 4) Describe measures to be taken to minimize or avoid any adverse impacts on the wetlands and regulated areas (silt fence, staked hay bales or other Erosion and Sedimentation control measures).

Project will utilize temporary erosion control measures such as silt fence, inlet protection, and construction entrances as well as permanent control measures such as riprap and a bioretention area to provide stormwater quality treatment for runoff from the majority of site impervious surfaces.

Part D – Site Description

Describe the general character of the land. (Hilly? Flat? Wooded? Well drained? etc.)

The majority of the site adjacent to US 44 and CT 195 is intensely developed with wooded areas surrounding the impervious areas on the northern and eastern boundaries of the site.

Part E – Alternatives

Have you considered any alternatives to your proposal that would meet your needs and might have less impact on the wetland/watercourse? Please list these alternatives.
The proposed activities are expected to have no adverse impacts on the off-site wetlands.

Part F – Map/Site Plan (all applications)

- 1) Attach to the application a map or site plan showing **existing conditions** and the **proposed project** in relation to wetland/ watercourses. Scale of map or site plan should be 1" = 40'; if this is not possible, please indicate the scale that you are using. A sketch map may be sufficient for small, minor projects. **(See guidelines at end of application – page 6.)**

- 2) Applicant's map date and date of last revision December 9, 2011
3) Zone Classification Planned Business 3
4) Is your property in a flood zone? Yes ☒ No Don't Know

Part G – Major Applications Requiring Full Review and a Public Hearing

See Section 6 of the Mansfield Regulations for additional requirements.

Part H – Notice to Abutting Property Owners

- 1) List the names and addresses of abutting property owners

Name	Address
See Exhibit C attached hereto.	

SEE EXHIBIT C ATTACHED HEREIN:

- 2) **Written Notice to Abutters.** You must notify abutting property owners by certified mail, return receipt requested, stating that a wetland application is in progress, and that abutters may contact the Mansfield Inland Wetlands Agent for more information. Include a brief description of your project. **Postal receipts of your notice to abutters must accompany your application.** (This is not needed for exemptions).

Part I – Additional Notices, if necessary

- 1) Notice to Windham Water Works is attached. If this application is in the public watershed for the Windham Water Works (WWW), you must notify the WWW of your project within 7 days of sending the application to Mansfield--sending it by certified mail, return receipt requested. Contact the Mansfield Inland Wetlands Agent to find out if you are in this watershed.
- 2) Notice to Adjoining Town. If your property is within 500 feet of an adjoining town, you must also send a copy of the application, on the same day you sent one to Mansfield, to

the Inland Wetlands Agency of the adjoining town, by certified mail, return receipt requested.

- 3) The Statewide Reporting Form (attached) shall be part of the application and specified parts must be completed and returned with this application.

Part J – Other Impacts To Adjoining Towns, if applicable

- 1) Will a significant portion of the traffic to the completed project on the site use streets within the adjoining municipality to enter or exit the site? ___Yes ___X___ No ___Don't Know
- 2) Will sewer or water drainage from the project site flow through and impact the sewage or drainage system within the adjoining municipality? ___Yes ___X___ No ___Don't Know
- 3) Will water run-off from the improved site impact streets or other municipal or private property within the adjoining municipality? ___Yes ___X___ No ___Don't Know

Part K – Additional Information from the Applicant

Set forth (or attach) any other information which would assist the Agency in evaluating your application. *(Please provide extra copies of any lengthy documents or reports, and extra copies of maps larger than 8.5" x 11", which are not easily copied.)*

Part L – Filing Fee

Submit the appropriate filing fee. (Consult Wetlands Agent for the fee schedule available in the Mansfield Inland Wetlands and Watercourses Regulations.)

___\$1,000. ___\$750. ___\$500. ___X___\$250. ___\$125. ___\$100. ___\$50. ___\$25.

___X___\$60 State DEP Fee

Note: The Agency may require you to provide additional information about the regulated area which is the subject of the application, or about wetlands or watercourses affected by the regulated activity. If the Agency, upon review of your application, finds the activity proposed may involve a "significant activity" as defined in the Regulations, additional information and/or a public hearing may be required.

The undersigned applicant hereby consents to necessary and proper inspections of the above mentioned property by members and agents of the Inland Wetlands Agency, at reasonable times, both before and after the permit in question has been granted by the Agency.

Joseph P. Williams

December 9, 2011

November/December 2011

Connecticut Wildlife

CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF NATURAL RESOURCES
DIVISIONS OF WILDLIFE, INLAND & MARINE FISHERIES, AND FORESTRY



From the Director's Desk



"Conservation is the foresighted utilization, preservation and/or renewal of forest, waters, lands and minerals, for the greatest good of the greatest number for the longest time." (Gifford Pinchot, first Chief of the U.S. Forest Service).

Connecticut's landscape is an ever-changing mosaic shaped by human hands. Through each successive change, wildlife has adapted . . . or lost. Fortunately, there is a network of public and private land managers, both large and small, with the commitment and energy to ensure Gifford Pinchot's sage wisdom is realized. Working with federal biologists, state foresters, land conservationists, farmers, and homeowners, the Department's biologists are exercising the foresight essential to the restoration and conservation of diverse and robust populations of native species throughout their ranges.

Whether wetlands restoration, grassland preservation, or young forest regeneration, a wide array of wildlife, including both game and non-game species, and the public benefit from wise stewardship. Emblematic of those benefits is the diversity of young forest species. New England cottontail and American woodcock, for example, have benefitted from the commitment of both private and state lands managers reshaping the state's woodlots to include a diversity of forest stands. By renewal of forest stands, including multiple age structures, we can perpetuate that joy today, tomorrow, and beyond.

There is little doubt that change in the landscape is a power force. Our challenge, in this land of steady habits, is recognizing and embracing change based on Gifford Pinchot's edict of 'foresighted utilization, preservation and/or renewal . . . for the greatest good for the greatest number for the longest time.'

Rick Jacobson, Director, DEEP Wildlife Division

Cover:

In late fall and winter, raccoons may "den up" during the coldest periods. However, this is not true hibernation, and the animals will wander during warm spells.

Photo courtesy of Paul J. Fusco

Connecticut Wildlife

Published bimonthly by

Connecticut Department of
Energy and Environmental Protection
Bureau of Natural Resources
Wildlife Division

www.ct.gov/deep

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Management, Conservation Education/Firearms Safety, Connecticut
Wildlife magazine

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Habitat and Mosquito Management, Conservation Education/Firearms
Safety

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State Land and Private Land Habitat Management

Connecticut Wildlife magazine (ISSN 1087-7525) is published bimonthly by the Connecticut Department of Energy & Environmental Protection Wildlife Division. Send all subscription orders and address changes to Connecticut Wildlife, Sessions Woods WMA, P.O. Box 1550, Burlington, CT 06013. Subscription rates are \$8 for one year, \$15 for two years, and \$20 for three years. No refunds. Periodical postage paid at Bristol, CT. Postmaster: Please send all address changes to Connecticut Wildlife, P.O. Box 1550, Burlington, CT 06013.

Web site: www.ct.gov/deep/wildlife

E-mail: dep.ctwildlife@ct.gov Phone: 860-675-8130



The Federal Aid in Wildlife Restoration Program was initiated by sportsmen and conservationists to provide states with funding for wildlife management and research programs, habitat acquisition, wildlife management area development, and hunter education programs. Connecticut Wildlife contains articles reporting on Wildlife Division projects funded entirely or in part with federal aid monies.



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Wood Heat: Solar Energy in Solid Form

Written by Bianca Beland, Forestry Summer Intern, and Jerry Milne, DEEP Division of Forestry

Wood, the oldest of fuels, is a good option for many Nutmeggers to heat their homes. It is plentiful, renewable, locally produced, can be harvested sustainably, and can be cheaper than fossil fuel alternatives. It is a good feeling to have a wood pile in the backyard to ensure a warm house not subject to power outages or the vagaries of the global economy.

Environmental Benefits of Wood

When coal or oil are burned, they transfer carbon from deep in the ground into the atmosphere. Burning wood also releases carbon, but this carbon was originally removed from the air. Through photosynthesis, trees, using the power of the sun, remove carbon dioxide from the air, convert it to sugar and, in turn, cellulose, to produce wood. Wood is really solar energy in solid form.

Measuring Firewood

Connecticut General Statute 43-27 requires that fuelwood be sold by weight (not advisable for stove wood) or by the standard cord or fraction thereof. A cord is defined as 128 cubic feet of compactly piled wood, usually 4' x 4' x 8'. It is illegal to market firewood by the "face cord" or "truckload."

Interestingly, the statute allows towns "to appoint annually, and more often if necessary, two or more of its inhabitants to be measurers of wood offered for sale within the town, who shall be sworn and shall receive such compensation for their services as the town may prescribe." The statute also defines seasoned wood as having been cut and air dried for at least six months. The Connecticut Office of Consumer Protection regulates the selling of firewood and can act on complaints (www.ct.gov/dcp).

What Makes the Best Firewood?

Connecticut is fortunate in that our forests are full of hardwood trees, which are a great source of firewood. Ash, oak, maple, beech, birch, and hickory are all excellent to burn when seasoned properly. In fact, according to an old poem, ash can be burned when still green:

*Ash wood wet or ash wood dry,
A king can warm his slippers by.*

Maybe the ash will burn, but you'll get a lot more heat if you wait six months.

Sources of Firewood

Cut and Split: The wood is usually delivered with a dump truck to your house. It can be green or seasoned, and often the



PHOTO BY J. MILNE

price will vary depending on the time of year.

Green wood in summer will often be cheaper than seasoned wood in the dead of winter, so it pays to plan ahead.

Log length: Probably the best bargain for homeowners willing to invest some "sweat equity" is to buy their firewood "log length." The dealer delivers the wood in 20- to 24-foot lengths with a log truck that carries anywhere from 6 to 8 cords of wood, depending on the size of the truck. The cost is usually

about half of cut and split wood.

The Connecticut Professional Timber Producers Association (www.timproct.org) maintains a list of its members who sell firewood. The DEEP Division of Forestry keeps a list of state-certified Forest Products Harvesters that can be used to find a firewood producer in your area (www.ct.gov/deep).

When purchasing firewood, make sure it comes from Connecticut (or has been properly heat-treated). Invasive insects have been documented in neighboring states, such as the emerald ash borer in New York and the Asian long-horned beetle in Massachusetts. Transporting infested firewood has been shown to be a major factor in the spread of many invasive insects.

Cut Your Own

If you own a woodlot, a judicious thinning can provide firewood while also improving the overall health and value of the remaining trees. Poor quality trees can be removed while promoting the growth of the more valuable timber. DEEP Division of Forestry Service Foresters can visit your land, at no charge, and recommend which trees to cut and which to keep, and offer advice on how best to manage your forest for the long-term.

The Division of Forestry runs a firewood cutting program for the public on DEEP lands. A lottery is held each winter for a limited number of two-cord permits, which cost \$60. The wood may be standing trees or downed wood left over from a timber harvest. Permittees generally have about a month to cut their allotment. The DEEP requires wood permit holders to wear personal protection equipment when operating a chainsaw, such as hard hat, chainsaw chaps, leather gloves, and leather boots.

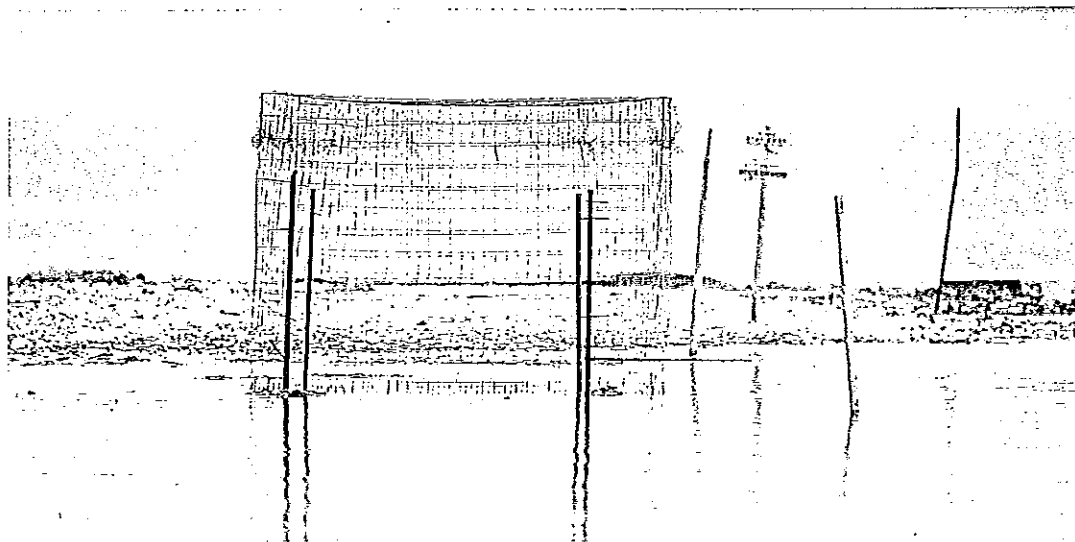
Training is available for individuals who would like to improve their chainsaw skills. One such program is called "The Game of Logging" (www.gameoflogging.com). Programs are geared towards professionals and homeowners.

continued on page 23

Storms and High Tides a Challenge for Plovers and Terns

Written by Rebecca Foster and photography by Paul Fusco; DEEP Wildlife Division

The 2011 piping plover and least tern nesting season in Connecticut was characterized by above average high tides, some shifting in nesting locations, and a higher than usual number of least terns in the state. The 52 pairs of piping plovers that nested along the Connecticut shoreline in 2011 is an increase over the 43 pairs observed in 2010. Yet, due to human disturbance and high tides, only 38 successful nests resulted in 71 chicks fledging, a decrease from 2010.



Piping plover nests were "washed out" by increased wave heights from spring storms.

High Tides Equal High Numbers of Eggs Lost

Connecticut's piping plovers arrived in late March and began mating and establishing nesting territories by the end of April. Piping plovers typically nest on barrier beaches, between the vegetated dunes and the high tide line. The nest is a simple "dig" or "scrape" in the sand sometimes lined with small bits of shells. Because the nests are merely a shallow depression in the sand, a higher than average tide often results in plover eggs

being washed away.

The first high tide in May coincided with a nor'easter, which brought over two inches of rain and winds of up to 30 miles per hour. The resulting storm surge "washed out" six plover nests statewide. Fortunately, plovers may lay a second clutch if the loss occurs early enough in the season.

A higher-than-average tide phenomenon occurred again in June, when many of the piping plover pairs were re-nesting.

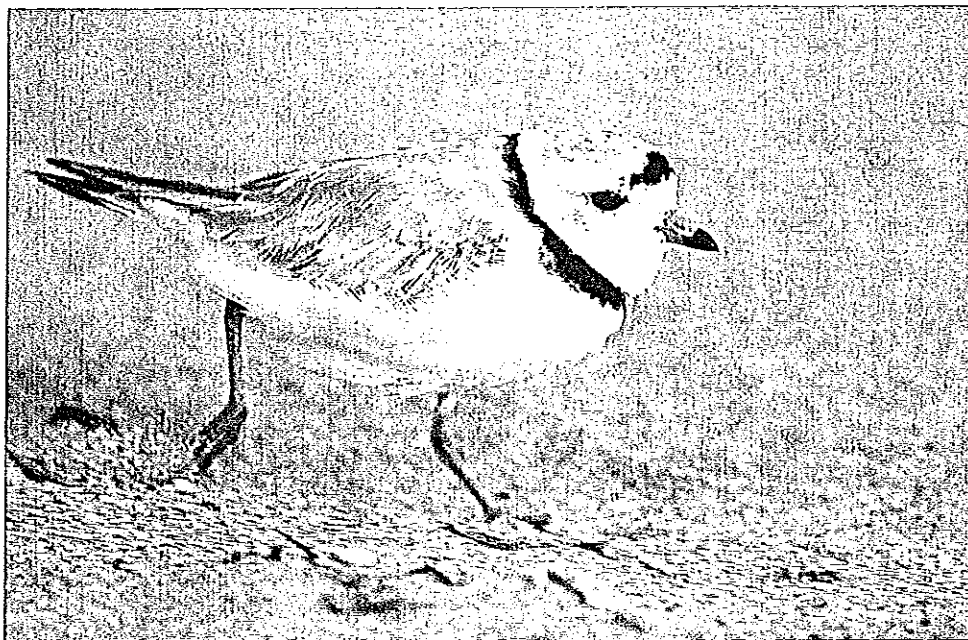
This second storm hit the Connecticut coast during a high tide in June with winds gusts up to 33 miles per hour, washing out at least seven plover nests.

Plover "Shifts" and New Nesting Locations

Piping plovers will typically return to the same general nesting location in consecutive years if they are successful in hatching and rearing chicks. This year, however, monitors observed plover pairs shifting to new locations following the June storm and subsequent nest wash-outs. After numerous nest wash-outs in Milford, at least two plover pairs shifted to more land-locked sections of beach. In Madison, two pairs of plovers moved their nesting locations from a desolate stretch of beach to a wider, adjacent beach with more human disturbance. It also appears that some larger scale shifts may have occurred in the eastern half of the state as well.

Bluff Point in Groton saw a large increase in nesting plover pairs, from two pairs in 2010 to six in 2011. At the same time, other beaches in eastern Connecticut saw moderate decreases in plover counts. One pair that nested in Old Lyme in 2010 did not return in 2011. Sandy Point in Stonington and Griswold Point in Old Lyme both saw one less pair in 2011 than in 2010.

Monitors located two new plover nesting sites this year. Cedar Island in



An incubating piping plover will leave its nest to "lead" potential predators away from their eggs.



In 2011, 359 pairs of least terns attempted to nest in Connecticut, a significant increase over the 119 pairs in 2010.

Madison hosted two pairs in 2011, and one pair was able to successfully fledge three chicks. A pair of plovers decided to nest at Sherwood Island State Park in Westport, a location that hasn't seen

recent years has caused concern among bird enthusiasts. In 2011, 359 pairs of least terns attempted to nest in Connecticut, a significant increase over the 119 pairs in 2010. Unfortunately, many tern nests were lost to high tide wash-outs, and only 124 least tern chicks fledged this year.

Important tern nesting areas include Sandy Point in West Haven, with over 450 adults in July, and Bluff Point in Groton, with 84 adult least terns. Sandy Point and Bluff Point produced 88 and 17 least tern fledges, respectively.

These beaches provide ideal conditions for both piping plover and least tern nesting. They are long, barrier beaches with sand and pebble substrates, dunes, and flat, open sections suited for colonial nesting. The significant limitation to nesting success at these

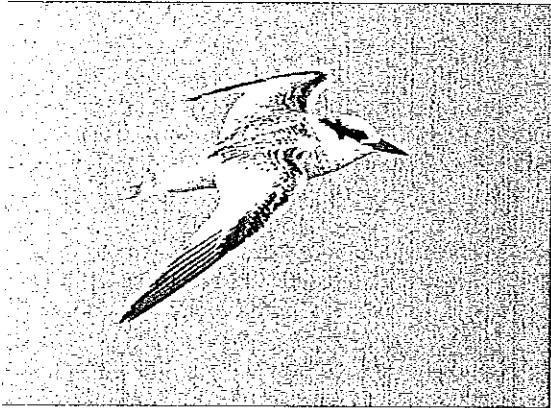
sites is human disturbance. Plovers and terns compete for space and resources with recreational beach users, including sunbathers, hikers, dog walkers, kayakers, boaters, equestrians, and educational groups. In addition, fireworks displays in July often bring large crowds and excessive noise and light directly to the nesting areas during the height of the least tern nesting season. Fortunately, no avian mortality was documented as a result of these events this year.

Human Disturbance Still a Concern

During the breeding season, DEEP staff and volunteer monitors spend countless hours protecting habitat, nests, and chicks to ensure that these state and federally threatened shorebirds continue to call Connecticut home. Stakes and string fencing with bright yellow signs asking people to "Please STAY AWAY from Bird Nesting Areas" is used to protect areas where plovers and terns are known to nest. When a plover nest is located and the four-egg clutch is complete, a large metal cage called an "exclosure" is placed around the nest. The exclosure prevents mammalian predators from reaching the eggs and adult plovers. Common predators include skunks, raccoons, foxes, domestic cats, and dogs. Bird netting is attached to the top of the exclosure to prevent avian predators from reaching nests, including herons, gulls, and crows.

While these fencing measures protect the nests from predators, it is a far greater challenge to protect these birds from human disturbance. Simply walking past a plover nest will usually cause the incubating adult to leave the nest and perform a broken-wing display to "lead" the human further down the beach and away from the nest. This behavior is a natural defense used by many ground-nesting birds to draw a potential threat away from the nest. Unfortunately, this means that the birds are unable to continuously incubate their eggs. This becomes problematic during inclement weather or on unusually hot or cold days because the embryos of unincubated eggs will perish if left exposed to the elements under extreme conditions for more than 15 minutes. Thus, it is imperative that beach users be educated about the importance of avoiding piping plover and least tern nesting areas and minimizing overall wildlife disturbance by not walking dogs through shorebird nesting habitats.

Funding for this project was provided by Section 6 of the federal Endangered Species Act. Section 6 provides grants to states and territories to support participation in a wide array of conservation projects for federally-listed threatened and endangered species, as well as for species that are candidates or have been proposed for listing.



Many tern nests were lost to high tide wash-outs, and only 124 least tern chicks fledged this year.

a plover pair since the 1990s. Unfortunately, this nest was washed out by the unusually high tide in June.

Human disturbance and changing beach conditions will cause piping plovers and least terns to continually "shift" their movements to find the habitat best suited to their mating and nesting needs.

Least Tern Count Is High in 2011

A gradual decrease in least tern pairs nesting along the Connecticut shore in

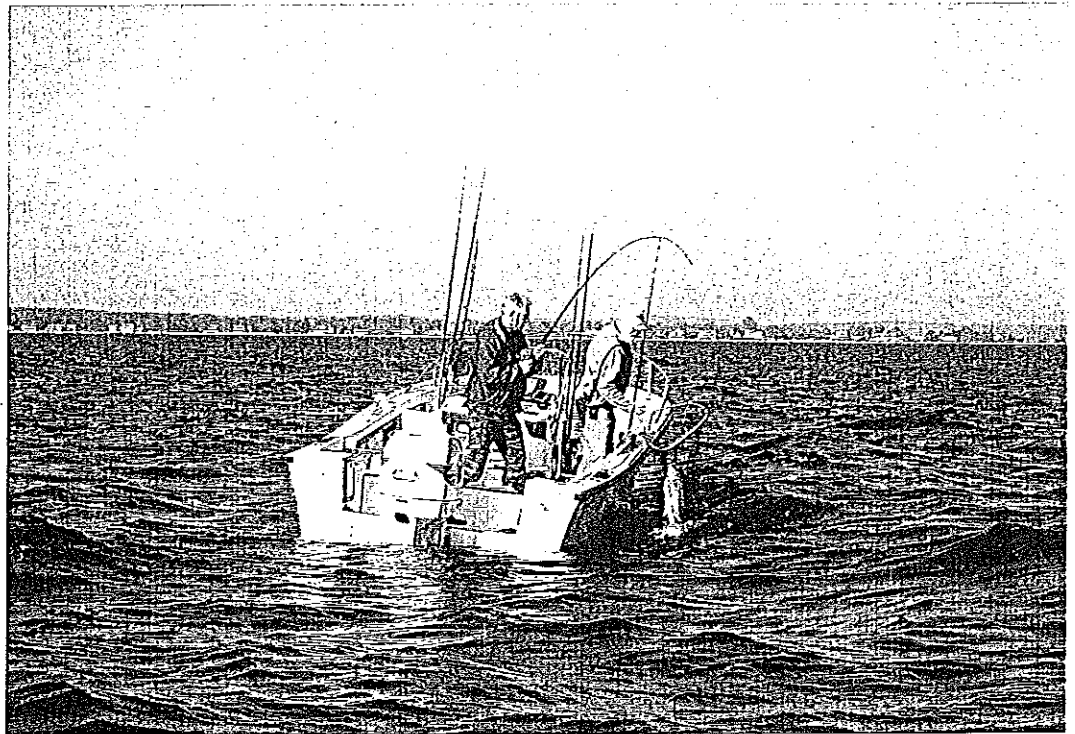
Fishing for Fun on Long Island Sound

Written by Penny Howell, DEEP Marine Fisheries Division

Estimates of the number of Connecticut citizens who use Long Island Sound in some way run into the tens of millions. Commercial uses, such as shellfish aquaculture, lobstering, and transportation, and military use, must coexist with thousands of recreational users. One of the largest user groups is recreational anglers who enjoy the Sound as a place to match wits with one of the more than 50 game fish species seasonally abundant in its waters. About one in five of Connecticut's 100,000 recreational boats are registered as fishing vessels. In addition to private, and party or charter boat fishing, many other marine anglers surf cast from our beaches or fish from city piers.

The DEEP Marine Fisheries Division has participated in the coastwide Marine Recreational Fishing Statistics Survey since 1987. However, Connecticut's new Marine Waters Fishing License and All Waters License are designed to obtain a better count of the estimated 120,000 anglers who fish in the Sound. The licenses also improve the quality of sport fishing data used in the management of target species.

So, how does requiring everyone to buy a license help the fishery or the science? Usually licenses are all about



DEEP MARINE FISHERIES PROGRAM

Anglers hook a striped bass and prepare to carefully net the fish so that it can be measured for minimum legal length.

generating money, but in this case the state will be spending more money than the program takes in so that a more complete head count can be made and better data gathered. The goal is to improve information about where and when people fish, what they catch, and what they throw back.

Survey data available now show that Connecticut's marine anglers make about one million fishing trips each year. Collectively, they catch about 5.5 million fish annually, keeping about two million. Federal economic surveys, carried out by the National Oceanographic and Atmospheric Administration (NOAA) in 2009, report that these fishing trips support over 4,000 jobs in Connecticut and generate an estimated \$600 million in annual sales of fishing

gear and related goods and services in the state.

The National Saltwater Angler Registry Program was established in 2010 and requires all marine anglers to register unless the angler is a resident of a state that has a salt water licensing program. (For more information about the Federal Registry, visit www.countrymyfish.noaa.gov.) Connecticut's salt water licensing program started July 1, 2009. Details about the program are available on the DEEP Web site (www.ct.gov/deep/fishing), and licenses can be purchased online (www.ct.gov/deep/sportsmenlicensing) or at your town hall or favorite tackle shop. The goal is to count every sport angler in Connecticut so that everyone's varied interests, needs, and impacts are accurately documented and considered when regulations and restoration programs are created or altered. If everyone who fishes recreationally supplies this information, all aspects of recreational fishing can be documented more accurately than they have been in the past. In this era of the biggest crowd getting the most attention, big fishing numbers translate into better fishing opportunities.

DEEP CARE PROGRAM



Fishing is family fun at the dock in Fort Trumbull State Park in New London.

Another Successful Connecticut Hunting & Fishing Appreciation Day!

Staff from the DEEP and members of the Friends of Sessions Woods spent the days before this year's Connecticut Hunting & Fishing Appreciation Day checking the weather forecasts and hoping for the best. As final preparations were underway the morning of September 24, everyone was hoping the rain would stop, the skies would clear, and people would start to come. As it turns out, that is exactly what happened! Throughout the day, close to 1,000 people came to the Sessions Woods Wildlife Management Area in Burlington to participate in free activities focused on hunting, fishing, wildlife, and the outdoors.

It was quite evident throughout the day that Hunting & Fishing Day is a family-friendly event, as many of the participants included families with kids of all ages. Everyone who attended had a full menu of activities to pick from. Children enjoyed making crafts at the Kid's Area. They also had a chance to get a face painting, see giant tortoises, learn about wildlife identification, and try to catch a "backyard bass." Parents and grandparents were thrilled at the opportunity to get the kids away from their electronic equipment and engaged in outdoor activities, all for free.

Individuals and families also had the opportunity to try target shooting with .22 rifles and bows and arrows, as well as fly casting and bait casting. Field dog demonstrations were held throughout the day and various breeds of hunting dogs were on display. Those interested in learning about specific hunting and fishing topics attended seminars on "Secrets of Fishing for Giant Carp," "Bow Hunting in South Africa," "Fishing for Striped Bass in the Connecticut River," and "Turkey Hunting Techniques," to name a few.

Biologists and staff from the DEEP were on hand to answer questions and interact with visitors. Representatives from various sportsmen and outdoor organizations and outdoor equipment companies set up booths to provide information and some even had free giveaways.

Many of the people who came to the 2011 Hunting & Fishing Day attended last year, but there also were a lot of first time attendees. Volunteers surveyed several participants to gauge whether or not people enjoyed the event this year, if they will come again, and what they would



Cheryl Hubble and Sandy Mazeau of the Friends of Sessions Woods at the Welcome Table during the 2011 Connecticut Hunting & Fishing Appreciation Day.

like to see in the future. All in all, people were well satisfied, they plan to come again, and liked that the event was free and had so much to offer. If you haven't attended Connecticut Hunting & Fishing Appreciation Day, make a point to come to the next one, which will be held on Saturday, September 22, 2012!

The DEEP and the Friends of Sessions Woods would like to thank the fol-

lowing sponsors of the 2011 Connecticut Hunting & Fishing Appreciation Day: the Weatherby Foundation, North Cove Outfitters, Orvis, Eastern Mountain Sports, Northwest CT Chapter of Trout Unlimited, Northwest CT Sportsman's Council, High Rock Shooting Association, Jacklin Rod and Gun Club, Trout Unlimited Naugatuck/Pomperaug Chapter, and the CT Chapter of Safari Club International.



Jason Hawley, with the Wildlife Division's Furbearer Program, instructs a youngster on how biologists use a dart gun to immobilize bears and other large animals for research.

Highlights of the Junior Naturalist Series at Belding WMA

Written by Jane Seymour, DEEP Wildlife Division

This past summer, the Belding Wildlife Management Area (WMA) in Vernon hosted a series of wildlife programs for kids. The Junior Naturalist series consisted of programs about birds, insects, plants, stream life, wildlife signs, and nature photography. Participants engaged in hands-on activities, and learned about adaptations, life cycles, habitats, and how to identify animals and the signs that they leave behind.

With grassy fields, a wildflower meadow, and forested streams, Belding WMA is a great place for finding birds and many kinds of insect, including butterflies, dragonflies, beetles, and bees. Participants of the Junior Naturalist programs found song sparrows, tree swallows, red-winged blackbirds, hummingbird moths, orange-spotted ladybeetles, milkweed bugs and beetles, fritillaries, skippers, monarch butterflies, a viceroy caterpillar

making a chrysalis, bumblebees, honeybees, and an ambush bug with its prey. The kids also found sowbugs, earthworms, and salamanders under rotting logs; mussel shells and a turtle shell by

the stream; crayfish, water striders, and minnows in the stream; owl pellets in the forest; and a wild turkey nest full of eggs.

Maxwell Belding donated the 282-acre Belding WMA to the State of



Participants of the Junior Naturalist series learn to identify birds at the Belding WMA in Vernon.



Using the camera as a way to investigate nature.

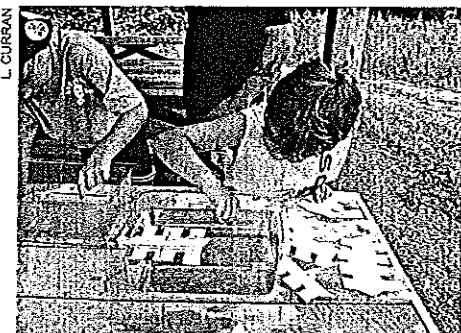


A great way to observe insects, such as this grasshopper, is "in the hand."

Connecticut in the 1980s. In 2002, Mr. Belding established a trust fund to help manage a diversity of wildlife habitats on the property and to provide environmental education. These free, educational programs would not have been possible without the generosity of Mr. Belding and his family.



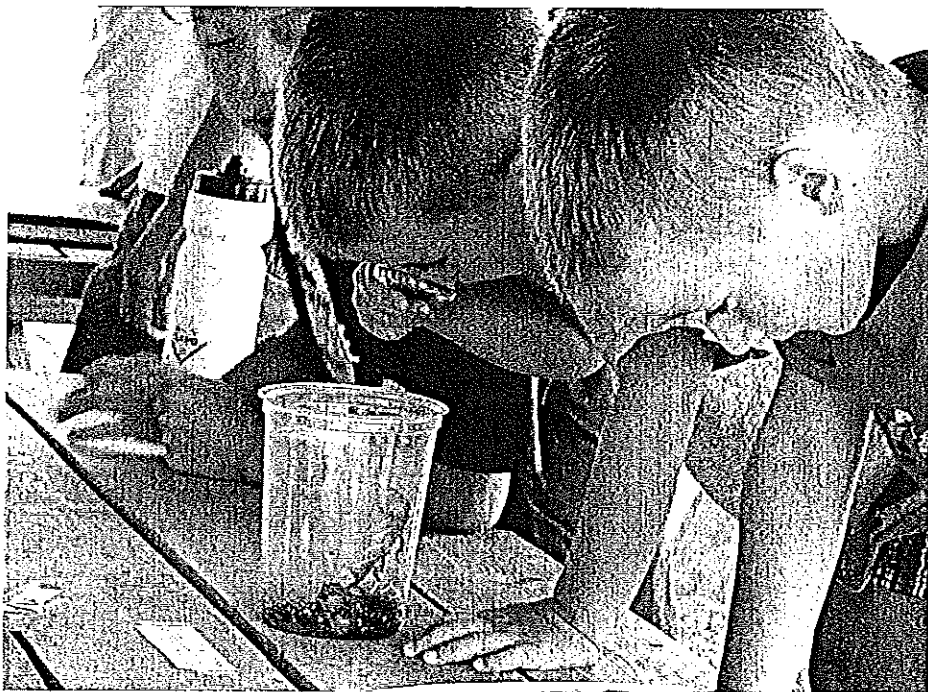
Searching for crayfish, minnows, and other aquatic organisms.



Meeting water striders and investigating the properties of water.



Participants used magnifying lens to get a closer look at insects and plants to help in identification.



Kids looked at a variety of insects up-close, and then went out into the field to find more.



Participants of the Signs of Wildlife program went on a wildlife scavenger hunt . . . and found a turkey nest!

Programs offered at Belding WMA in Vernon include seasonal walks to learn about the plants and animals that can be found on the property. School groups use the area as an outdoor classroom and to learn about habitats and the species that depend on them. Staff also provide environmental educational programs at area schools and libraries. Several habitat management projects, which focus on special habitats and unique species, are currently in progress at Belding. To learn more about Belding WMA, visit www.ct.gov/deep/wildlife.

"Destination" Angling in Your Own Backyard!

Broodstock Atlantic Salmon Fisheries

Written by Tim Barry, DEEP Inland Fisheries Division

Each year, autumn brings a "song-to-the-heart" for a small but dedicated group of outdoor enthusiasts. No, they're not "leaf-peepers," hikers, or even small game, waterfowl, or deer hunters. This is a group that quietly plies their trade in two of New England's great "comeback" rivers. These avid anglers go fishing for Atlantic salmon right here in Connecticut! For anglers who have dreamed of travelling to some far-off locale to catch the "king of fish," the DEEP Inland Fisheries Division has provided some close-to-home opportunities of a lifetime! More anglers from Connecticut, and recently from neighboring states, are joining the adventure.

Since 1992, Inland Fisheries Division staff has been annually stocking between 500 and 1,800 large salmon into the Naugatuck River in western Connecticut and Shetucket River in the east. Most of these huge fish are raised at the Division's Kensington Hatchery. The fish are a bonus derived from participation in the Connecticut River Atlantic Salmon Restoration project. DEEP is one of several New England agencies that participate in this restoration project.

Unlike Pacific salmon, Atlantic

salmon can survive after spawning. If conditions in the wild are good, they can return to their natal rivers to spawn again. To complement salmon returning from the ocean and to ensure a reliable source of eggs, adult "broodstock" are maintained year-round at the Kensington Hatchery. Select female salmon are carefully handled as they release their eggs. The eggs are fertilized with milt from male salmon, incubated, hatched, and reared. These broodstock salmon produce millions of eggs for the Atlantic salmon restoration effort. Inland Fisheries Division personnel stock resulting fry and fingerlings throughout the best streams and rivers in the Connecticut River drainage basin. It is hoped that they will grow, migrate to the sea, and return as adults to spawn several years later.

Kensington Hatchery staff continually assesses the condition and numbers of age-three salmon for creation of the following year's broodstock. Those not selected are identified for stocking instead. The cohort (group) of age-four salmon also is examined. Some surplus fish from this group also are destined for mid-October stocking instead of spawning. A new cohort of age-four fish becomes

available each year, making many of the older salmon available for stocking even after they are spawned. All of these fish are large, weighing between three and 30 pounds!

Up through 2006, broodstock Atlantic salmon were only stocked into the Naugatuck River (currently stocked from Route 118 in Harwinton-Litchfield, downstream to the Thomaston Dam and from Prospect Street, in Naugatuck, downstream to Pines Bridge Road, in Beacon Falls) and the Shetucket River (from the Scotland Dam, in Scotland, to the Occum Dam, in Norwich). In 2007, the Shetucket River was so low that some salmon scheduled for that river were stocked into Beach Pond (Voluntown) and Crystal Lake (Ellington) instead. This captured the attention of a whole new group of anglers. The lake stockings became so popular that the Division has continued the practice each year since. This year, there are plans to stock Mount Tom Pond (Morris) and Crystal Lake.

Anglers can legally fish for broodstock salmon on only three rivers: the Shetucket (from the Scotland Dam to the Water Street Bridge in Norwich), Naugatuck (entire river from the confluence of the East and West branches to the Housatonic River), and the Housatonic (downstream of the confluence with the Naugatuck River). The fishing season for broodstock salmon on rivers is open from 6:00 AM on the third Saturday in April through the last day of March. From October 1 through November 30, fishing for salmon is catch-and-release only, and for the rest of the open season, anglers are allowed to keep one salmon per day. Fishing for broodstock salmon on these rivers is limited to the use of a single fly or artificial lure with a single, free-swinging hook. Additional weight may not be added to the line and snagging is strictly prohibited.

The regulations for broodstock Atlantic salmon released into lakes and ponds are different from those pertaining to rivers. Regulations for methods, seasons, and minimum lengths for salmon are the same as for trout in that specific lake or pond. One salmon can be kept per day.

The Kensington Hatchery is an extremely busy place during the October-



Volunteers from the Thames River Chapter of Trout Unlimited assist with broodstock Atlantic salmon stocking each fall on the Shetucket River.

November spawning period. Following spawning, hatchery staff allows the salmon to rest for a short time and recover. Fish culturists and biologists then schedule a second (and usually the largest) stocking of the Naugatuck and Shetucket Rivers around Thanksgiving Day. The weekend following Thanksgiving is the most popular time for Atlantic salmon fishing. In fact, the entire autumn season is very popular. Anglers spend

19,000 hours of fishing for these salmon each year! Salmon fishing also generates an economic impact of \$550,000 annually to Connecticut's economy.

So, when you see anglers bundled-up in warm clothing, casting a line into the cold, rushing waters of the Naugatuck and Shetucket Rivers on Thanksgiving weekend, you'll understand. Each of them shares high hopes of hooking a huge *Salmo salar*, "the leaper." They

are taking full advantage of a unique opportunity to battle one of these majestic, jumping acrobats without having to travel many hundreds of miles and spend a small fortune in the process. For some, the day will turn into a dream come true. For all, it will generate fantastic stories to be shared while sitting beside a fireplace, warming from the invigorating experience.

CARE Program Scores High Marks in National Review

Town recreation departments and schools benefit from free courses

Written by George Babey, DEEP Inland Fisheries Division, retired

Since 1986, Connecticut Aquatic Resources Education (CARE) volunteers have taught over 1,000 Family Fishing Courses in partnership with municipal park and recreation departments. Another 500 classes have been taught for free through partnerships with schools across the state. The 2011 report, *Effectiveness of Hunting, Shooting, and Fishing Recruitment and Retention Programs*, which is based on a national survey, rated CARE efforts highly. When compared to 13 other programs across the country, which included water, fish, and fishing on their agendas, CARE was in the top five for many categories. After participating in a Family Fishing Course, CARE students:

- Identified themselves as anglers (#1 among 14 programs);
- Had an increased interest in fishing (#3);
- Had an increased likelihood of going fishing (#2);
- Actually increased their fresh and saltwater fishing participation (#1 and #4);
- Said they learned *a lot* about tackle and methods (#1);
- Had confidence in their ability to go fishing again (#1);
- Knew places to go fishing (#2);
- Understood fisheries management (#2); and
- Actually obtained fishing equipment following the course (#1).

Of note is that CARE students gained a significant interest in shooting and hunting, even though they had never hunted and only 10% had ever tried target shoot-

ing before they participated in CARE (lowest percentages of all programs surveyed across the U.S.). This is likely because so many CARE instructors also shoot and hunt. Conversations about great recipes, meals, and hunting experiences during Family Fishing Courses must have sparked student interest.

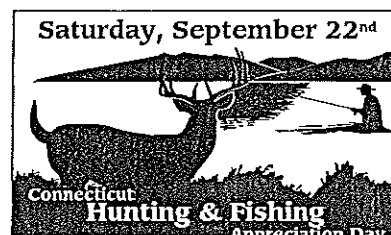
Observations made by CARE staff over 25 years of continuous operation were also confirmed:

- Most people taught in the classes were truly beginners, with little prior training in water, fish, or fishing;
- Participants spanned the racial, hometown, and age spectrum nicely;
- Many indicated they would be interested in another CARE event; and
- About 50% of respondents said they liked weekend classes, while 40% said they liked weekday classes. The DEEP's new Family Fishing Courses most often convene twice: a classroom session on a week day and a fishing trip on a weekend.

Particularly pleasing was that estimates recorded by CARE staff in November 2008 (it was predicted that 80% of Family Fishing Course students actually go fishing after taking a course) correlated highly with the results of this national survey (90% go fishing after taking a course).

Fishing is uniquely exciting and relaxing at the same time and a wonderful lifetime skill. Fishing also provides fantastic outdoor experiences to be shared among families and friends of all ages and abilities. CARE staff would like to offer free Family Fishing Courses to even

more cities and towns across Connecticut, as well as Family Ice Fishing courses in winter – including a chance to compete in our annual Family Ice Fishing Derby! Those interested in becoming certified CARE instructors are encouraged to register for free training programs. Town recreation department staff or teachers who wish to pursue courses for people in their communities may visit the CARE Web page for more information (www.ct.gov/deep/fishing).



Save the Date! The 3rd Connecticut Hunting & Fishing Appreciation Day will be held on Saturday, September 22, 2012, at the Sessions Woods Wildlife Management Area in Burlington. Stay tuned to Connecticut Wildlife and the DEEP Web site (www.ct.gov/deep/wildlife) for updates.

A Wood Borer's Worst Enemy - The Hairy Woodpecker

Article and photography by Paul Fusco, DEEP Wildlife Division

In graceful undulating flight, a boldly patterned bird smoothly sweeps up between forest trees, landing on a large bare tree limb. It starts tattooing the dead branch with its strong, pointed bill, creating a loud drumming sound that resonates through the forest. Once done with that tree, the bird quickly moves on to the next, calling loudly as it goes. This reclusive

bird is a hairy woodpecker, a typically shy, but active and noisy bird of the mature forest.

Description

The hairy is a medium-sized woodpecker with strongly marked black-and-white plumage. Its black wings have white spots, giving it a checkerboard appearance. The markings of the hairy are virtually identical to its smaller relative, the more common downy woodpecker. Both species have a white back and flanks. The hairy has a proportionately longer and heavier bill. The outer tail feathers are unmarked and white on the hairy, while the downy has black spots on its white outer tail feathers. Males of both species have a red patch on the nape.

Woodpeckers have strong, zygodactyl feet – two toes are pointed forward, one backward and one laterally to the side. Their strong, stiff tail feathers provide support when the birds cling to the side of a tree.

The hairy woodpecker gets its name from the somewhat shaggy appearance of its plumage.

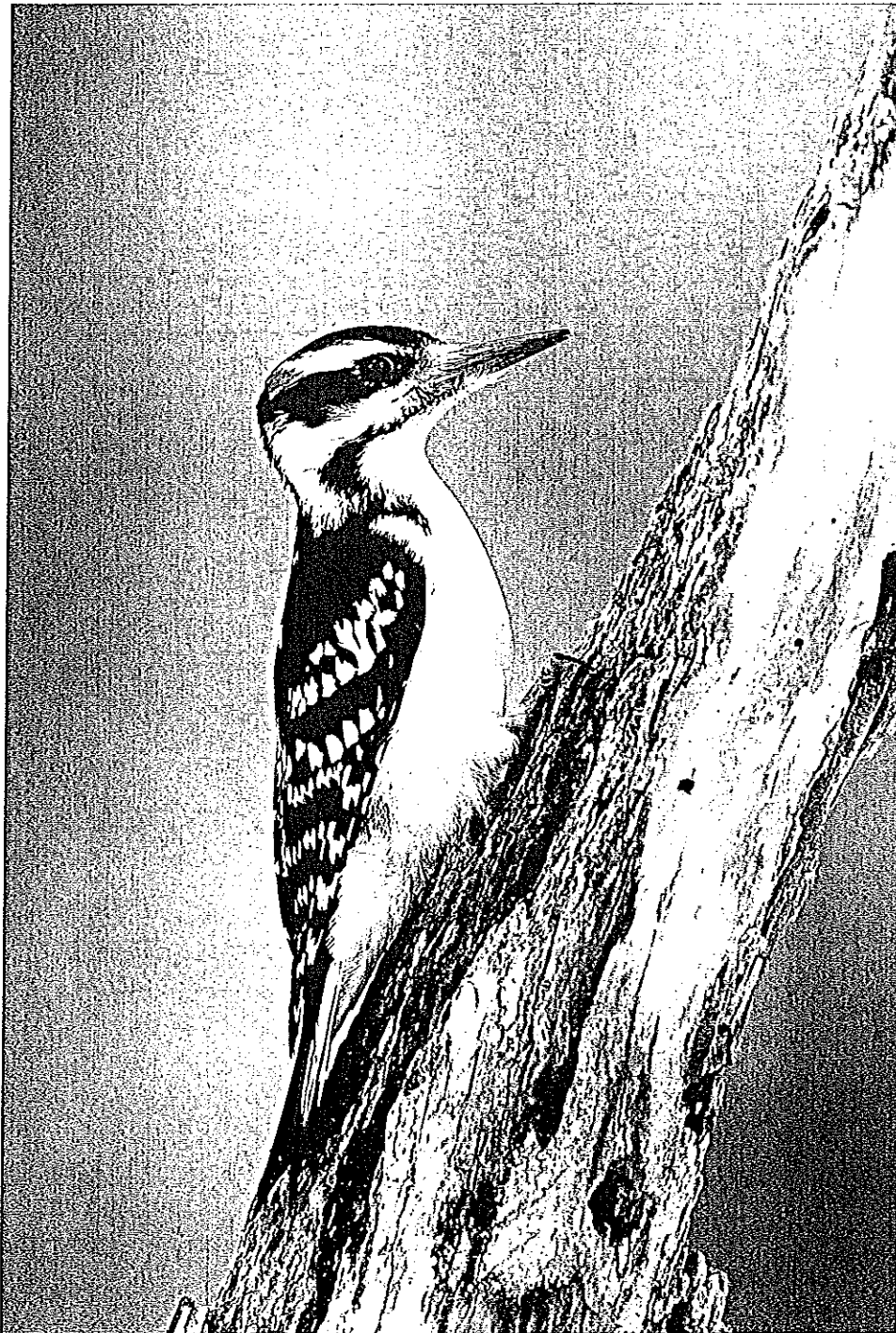
Range and Habitat

Hairy woodpeckers are widely distributed across North America. In Connecticut, their distribution is also widespread, but patchy. They are most common in the mature forested areas of the northwestern part of the state, and less common in the southern and eastern portions. They favor mature forest, forested wetlands, streamside woodlands, and sometimes orchards. They are less common in urban woodlots and rarely found in developed areas.

Hairy woodpeckers are permanent residents in Connecticut. They are non-migratory, although in winter they will range more widely, sometimes coming into backyards and towns to search for food along the trunks and main branches of large trees. They also will visit backyard bird feeders that offer suet, peanuts, or sunflower seeds.

Behavior

The typical call of the hairy woodpecker is a sharp, strong, metallic "peek." Their rattle call, somewhat similar to a kingfisher, is a loud and high-pitched series of rapid notes on one pitch. The rattle call of the downy



Males show a bright red patch on the back of the head. Note the heavy, pointed bill.

woodpecker differs in that it descends in pitch. During the mating season the hairy uses another call, a rapid, high-pitched "*kuweek, kuweek, kuweek*" that is emphatically repeated over and over. The drumming is loud, fast, and long, and is repeated less frequently than the drumming of the downy woodpecker. Woodpeckers announce their presence and claim territory by drumming.

The hairy woodpecker's diet primarily consists of wood-boring insects and their larvae, along with ants. Caterpillars, spiders, seeds, and wild fruit make up smaller portions of the diet. In winter, hard mast, such as acorns and beech nuts, are an important food source.

Woodpeckers have a long extendible tongue with a barbed and bristled end. When coated with saliva, the tongue becomes sticky, making it easier for the bird to catch food. The tongue is supported by a strong, cartilaginous horny structure that extends around the skull. This specialized anatomy allows the bird to reach food that may be deep in tunnels within a tree.

Hairy woodpeckers use their chisel-like bills to excavate a nest cavity, which is typically in a living tree 5 to 60 feet above the ground. They lay 3 to 6 white eggs in the soft wood chips at the base of the nest cavity. The eggs hatch in 13 to 15 days, and young fledge in about 28 days. They raise 1 brood per year.

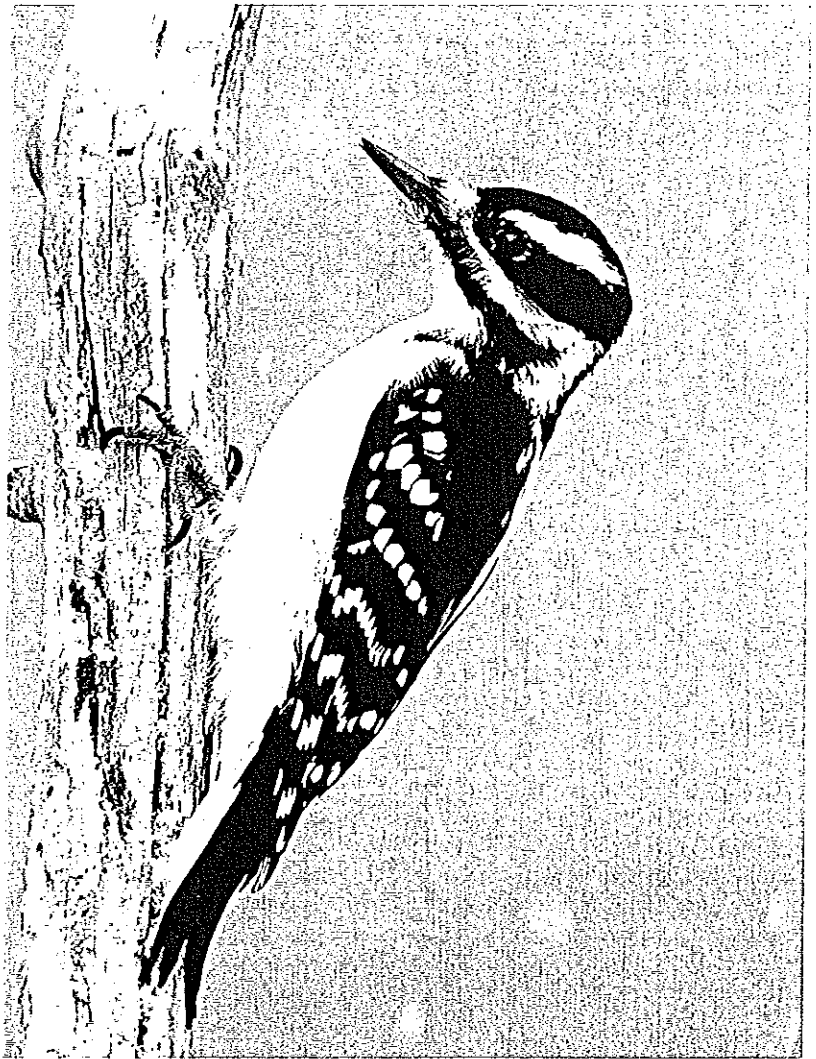
Conservation

Hairy woodpeckers are invaluable in their protection of the forest by consuming large amounts of harmful insects. This protection also extends to shade trees and orchards. Studies have shown that 75% of the woodpecker's diet is made up of injurious insects, mainly wood-boring beetles and their larvae, which are eaten throughout the year. Even though hairy woodpeckers will eat wild fruit, their consumption of cultivated fruit is deemed to be insignificant.

Dead and dying trees, known as snags, are an essential part of the forest ecosystem. Many species depend on snags for finding food, refuge, and a place to nest or den. The hairy woodpecker is an example of one species that is heavily dependant on snags for survival. A healthy forest ecosystem contains a good number of snags to benefit wildlife.

Hairy woodpeckers are considered to be fairly common in Connecticut, but are not common in all parts of the state. In fact, the bird is listed as a declining species by the National Audubon Society (NAS) and the U.S. Geological Survey (USGS) in our state. While some population data are inconsistent, the general conclusion seems to be that hairy woodpeckers in Connecticut have been experiencing a downward trend since at least the early 1970s. This is based on NAS Christmas Bird Counts and USGS breeding bird survey data.

One would think that a bird which depends on mature forests in Connecticut would be doing well due to forest maturation over the past century. But, the bird could be impacted by a variety of



Hairy woodpeckers are checked and spotted with black and white markings. Their backs are pure white, and their outer tail feathers are unmarked white.

factors, such as forest fragmentation, competition with the invasive European starling and house sparrow for nest cavities, or excessive removal of dead and dying trees. Competition also may be occurring from other woodpecker species, including the red-bellied, which has been expanding its range northward. The reasons for the apparent decline remain unclear.

Like most woodpeckers, the hairy can become a nuisance problem for homeowners. It is best to address such problems by considering all preventive measures that are available. For information about dealing with woodpecker problems, visit the Wildlife Division's Web page at www.ct.gov/deep/wildlife and select the "Nuisance and Distressed Wildlife" tab.

What You Can Do

Property owners that want to enhance habitat for woodpeckers on their land can:

- Girdle trees to create snags
- Leave some patches of trees unmanaged, especially along stream sides and other water bodies
- Leave dead trees standing in areas where it is safe to do so



A Perspective on Hunting in an Increasingly Urban Environment

Written by Min T. Huang, DEEP Wildlife Division

Hunters and the hunting tradition contribute in many positive ways to the fabric of our country. What would the state of our natural world be without the historic and current financial and political contributions of hunters? Would a land ethic exist in this country if it weren't for hunters and the hunting tradition? Hunters lobbied for and were granted an excise tax on hunting equipment in 1937. This legislation, the Pittman-Robertson Act (or Federal Aid in Wildlife Restoration Program), has resulted in a dedicated, stable source of funding for wildlife and habitat conservation that is unparalleled in the world. The hunting community requested this legislation because it realized that without it, the cherished natural resources of this country were going to disappear. This dedication and willingness to sacrifice (financially, in this case) are testament to the overall ethic of hunters and the hunting tradition. Unfortunately, however, a very small number of 'hunters' is increasingly responsible for casting a pall upon the rest of the hunting community.

As urbanization increases in Connecticut, the future of our hunting tradition may very well rely upon the behavior of the hunting community. As our state becomes more congested, the places where one can enjoy the hunting tradition become fewer and fewer. One new house can turn what was once a great hunting spot into a marginal or non-hunting spot. No more evident is this trend than with our coastal waterfowl hunters. Housing development along the coast continues at a rapid pace, turning once secluded, safe

hunting areas into hunting areas that are in full view of the public. In other cases, development results in the outright loss of hunting areas.

Increasing development also implies decreasing public awareness of the hunting tradition, culture, and benefits that are derived from hunting and a conservation ethic. As such, the behavior that hunters exhibit while in the field is coming under more scrutiny. All it may take is one high-profile incident involving hunters and the non-hunting public to result in severe restrictions to hunting privileges.

For example, Connecticut hunters currently enjoy productive waterfowl areas adjacent to urban centers. Our coastal topography, with its many peninsulas and near shore islands, provides many hunting sites that are highly visible to the public. As such, hunters need to not only exercise the highest standards when hunting these areas, they also need to be mindful of the other people who enjoy our natural resources as well.

Just because it is legal to hunt in a particular area doesn't mean it should be hunted during all seasons. This is a common sense issue. For example, the early Canada goose season occurs during September when the weather is typically pleasant and many other people are enjoying the outdoors. On a beautiful Saturday during the early goose season, should a hunter set up in full view of the public on a rock pile just offshore from a public park where people are picnicking and children are playing on the swingset? That hunter is certainly well within the law to hunt that given area, but might

it be more advisable to hunt there on a weekday instead or on a day when few people are using the park? That hunter, for that particular day, should hunt somewhere else.

If we want to maintain hunting opportunity, it is imperative that we constantly remind ourselves to regard hunting as a privilege, not a right. Too often, we forget that hunting is indeed a privilege, in need of prudent stewardship. Similar to the responsibility of wildlife biologists to be stewards of the wildlife resource, it is the responsibility of hunters to be good stewards of the hunting tradition.

Hunters are under intense scrutiny while in the field, and they need to be aware of that scrutiny. Shooting a goose from the side of the road, although it may be safe and legal, is not the kind of image hunters should be portraying to the general public. Inadvertently raining shotgun pellets on a house or arrogant and abrasive interactions with the non-hunting public while in the field will not maintain hunting traditions and privileges.

Is it advisable for hunters to jump out of a vehicle, quickly load a gun, and shoot a pheasant that they see on the side of the road? Even though it is in direct conflict with the principles of fair chase, it happens. These folks may be legal in their actions, but what image and what type of hunting ethic do those actions portray? Is it ethical hunting behavior to wait for the stocking truck to arrive, so that birds can be shot as soon as they are released? Unfortunately, such a scenario does occur during the small game season on certain properties.

It seems like common sense to avoid these types of incidents; however, these issues do occur. Evidently, there is a small number of hunters who don't feel the need to act responsibly while in the field. It is increasingly important that the vast majority of ethical and responsible hunters police their own ranks to ensure that an ethical hunting tradition is being conveyed and passed on to the next generation of hunters.

If you witness irresponsible and illegal behavior in the field, call the Turn in Poachers (TIP) hotline at 800-842-4357. Furthermore, if you witness behavior that is legal, but in poor judgment, a word of

Submit Artwork for the CT Junior Duck Stamp Contest

Young Connecticut artists have an opportunity to submit their artwork of a waterfowl species in the Connecticut Junior Duck Stamp competition sponsored by the Connecticut Waterfowlers Association (CWA). Students are judged in four groups according to grade level. Three first, second, and third place entries are selected for each group. A "Best of Show" is selected by the judges from the 12 first-place winners. The "Best of Show" is then entered into the national Junior Duck Stamp Contest. The first place design from the national contest is used to create a Junior Duck Stamp for the following year. Junior Duck Stamps are sold by the U.S. Postal Service for \$5 each. Proceeds support conservation education and provide awards and scholarships for the students, teachers, and schools that participate in the program.

The deadline for submitting artwork for the 2012 competition is March 15, 2012. Artwork should be sent to Chris Samor, 29 Bower Hill Rd., Oxford, CT 06478. More information about the Junior Duck Stamp Program is on the U.S. Fish and Wildlife Service Web site at www.fws.gov/juniorduck. To learn more about the Connecticut Waterfowlers Association, visit the organization's Web site at www.ctwaterfowlers.org.



Over 77% of Americans favor legal hunting. However, the image that some hunters portray can negatively influence the public's perception, and even support, of hunting in general.

Although legal, the situation portrayed in this photograph does not shed a positive light on hunters and hunting. Ethical sportsmen use better judgement when choosing a location to hunt. Hunting along a road makes sportsmen more visible to joggers, walkers, and other passersby, who may scrutinize their hunting methods and ethics. In addition, the hunter pointing his gun should be wearing more fluorescent orange to increase his visibility to other hunters and to meet Connecticut's fluorescent orange clothing requirements, which specify that a total of 400 square inches be worn above the waist and be visible from all sides from September 1 through the last day in February.

advice might be in order. You would be surprised at how positive peer pressure can change poor behavior. It is incumbent upon us all to ensure that the image of the hunter and our tradition remains a positive one to the general public.

As hunting becomes less of a mainstream activity, we need to ensure that situations are not created where those on the fence with regard to hunting are pushed, through our actions in the field, to the side of non-tolerance. There is a take home message the hunting community needs to embrace — "We live in an increasingly urban state. Many do not share the hunter's appreciation of hunting or the outdoors. Think before you hunt, think while you are hunting, and think before you shoot." The typical hunter will have countless opportunities over the course of his or her hunting career to take game. Hunting, however, is not just about

the taking of wildlife. Most, if not all, of the incidents described herein arise from extremely poor judgment. That type of behavior will destroy hunting for all of us. If a situation seems chancy, or uncomfortable, pass on the opportunity. Those who continue to take chances while in the field — 'push the envelope' so to speak — will be responsible for eliminating the opportunity to hunt for all hunters. It would be a tragedy of untold proportions if hunters were to lose their relevance, opportunity, and privilege to hunt because of the "bad" behavior of a few.

Conservation Education/Firearms Safety courses are offered year-round. Check the DEEP Web site (www.ct.gov/deep/hunting) for class times and locations or call the Franklin Wildlife (860-642-7239) or Sessions Woods (860-675-8130) offices during business hours.



The Wildlife & Sportfish Restoration Program is celebrating its 75th anniversary in 2012. Future articles in *Connecticut Wildlife* and a special web page on the DEEP Web site (to be launched in 2012) will highlight the accomplishments of this extremely successful program. You also can visit www.wsfr75.com for more information throughout the year.

Dead Sea Turtle Recovered through a Team Effort

Written by Dean Macris, Coastal Environmental Services

In August 2010, the Sea Research Foundation at the Mystic Aquarium received a call from a dive team that had discovered a large, entangled, and dead leatherback sea turtle. The Sea Research Foundation has a partnership with Coastal Environmental Services, the firm that operates pump-out boats on the Mystic and Thames Rivers, where Coastal Environmental Services makes its research vessel *Maverick* available for marine animal rescue, release, and recovery.

Coastal Environmental Services was contacted after Sea Research received the call about the leatherback. A team was assembled immediately and underway within a few hours. The turtle was located south of a point between Block Island (Rhode Island) and Montauk Point (New York). Upon arrival at the station, the divers out of Point Judith, Rhode Island, prepared to recover the turtle.

The divers knew the sea turtle was large, but they had no idea how difficult it would be to handle and bring to the surface. The team eventually lifted the turtle onto *Maverick's* swim platform, even though it was estimated to weigh more than 500 pounds.

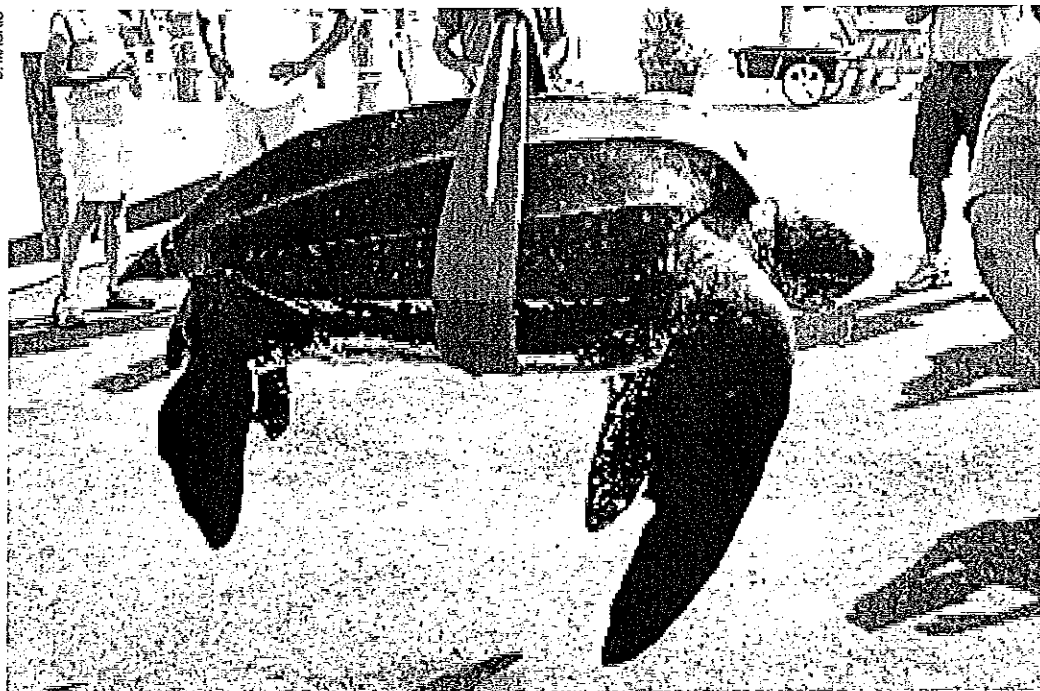
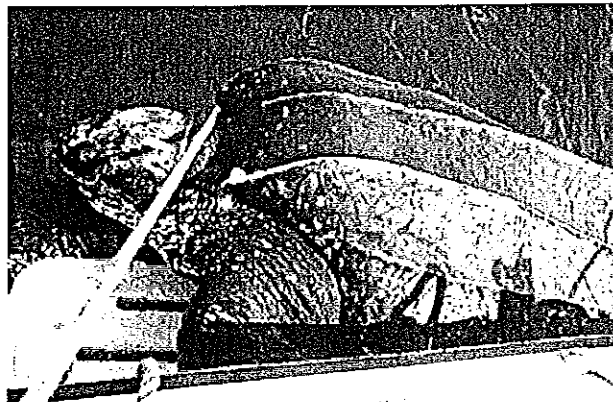
Initially, the Sea Research Foundation Marine Biologist/Stranding Coordinator began collecting data, thinking it would be best to just take tissue samples. However, considering the good condition of the turtle, the team realized that the turtle could be lashed to *Maverick* and brought back to Mystic so that the Sea Research Foundation could conduct a more extensive necropsy and gain further understanding of these endangered creatures.

Once in Mystic, Coastal Environmental Services contacted Mystic Shipyard where a forklift truck was ready to hoist the turtle in a sling from *Maverick* onto a Sea Research Foundation truck.

This recovery of the leatherback sea turtle was truly a team effort. It was successful because of the intact recovery in open ocean waters and the research that followed. Thanks are extended to Mike Mason of the dive team for taking the underwater photographs.



(Top) Recovery of the leatherback sea turtle underwater. (Below) Turtle strapped to the *Maverick's* swim platform.



This leatherback sea turtle, which weighed more than 500 pounds, became entangled in abandoned gear and died. It was recovered between Block Island, Rhode Island, and Montauk Point, New York, and brought to Mystic Aquarium in Connecticut for a necropsy.

To learn about Coastal Environmental Services (CES) and see more photos of the sea turtle recovery, go to www.cespumpout.com/conservation/ces-and-srf-turtle-recovery. CES of Southeastern Connecticut is a non-profit public charity dedicated to keeping local waters clean. Pumpout boats are located on the Mystic River, Thames River, and all points in between. By bringing pumpout boats directly to vessels and keeping pumpouts free-of-charge, CES provides boaters an easy and convenient way to protect our waters from pollution. CES operates thanks to federal, state, and local grants and the generous donations of businesses and boaters.

Sea turtles can become entangled in discarded fishing line and other gear, preventing them from reaching the surface to breathe.

Sea Turtles

Have you ever wondered if there are sea turtles in Long Island Sound? Although these marine creatures are better known for breeding and nesting in the tropics, sea turtles frequent the waters of the northeastern United States. Of the eight species of sea turtles in the world, four have been documented in Connecticut waters in Long Island Sound. Sea turtles arrive in the Sound in late June as water temperatures rise, and migrate south in search of warmer waters by mid-November. All sea turtles in U.S. waters are listed as either endangered or threatened, and are protected under the federal Endangered Species Act (ESA) of 1973. The ESA also provides for the conservation of important ecosystems that sea turtles depend on, and makes it illegal to "take," import, sell, or transport sea turtles, live or dead, or their products, throughout the U.S. or through foreign marketing. The four sea turtles found in Connecticut waters also are on the state's Threatened and Endangered Species List. Two are threatened – green and loggerhead – and two are endangered – Kemp's ridley and leatherback.

Natural History

Just like other turtles, sea turtles breathe air. They frequently come to the surface to breathe when active, but can remain underwater for several hours while resting. Sea turtles do not have teeth; instead, they use their powerful jaws to tear and crush their food. Each species prefers certain food items, such as crustaceans, shellfish, jellyfish, seaweed, snails, algae, and small fish.

Sea turtles rarely interact with each other outside of courtship and mating. They remain in the sea for their entire lives, except for nesting adult females and newly hatched young. Therefore, little is known about their natural history and distribution. However, the nesting habits of sea turtles along beaches in the southern Atlantic Coast are well-documented. The nesting season occurs at different times around the world, but in the U.S., it occurs from April through October. Sea turtles make a remarkable migration of hundreds of miles from their feeding grounds to their nesting beaches. Most adult females return to the same beaches where they hatched to lay their eggs. They leave the water, usually during night, and crawl above the high tide line. They excavate pits using their flippers and then dig egg chambers in moist sand. Females lay from 50 to 160 white eggs, about the size of ping-pong balls, cover them with sand, and return to the water.

The eggs incubate in the sand for about 50 to 70 days. At hatching, the young turtles break open the egg shells by using a temporary egg-tooth, and then dig their way out of the nest as a group. The hatchlings leave the nest, usually at night, and head toward the light along the horizon or light reflected off the surface of the ocean. However, if artificial lights are on or near the beach, the hatchlings may become disoriented, travel in the wrong direction, and possibly never make it to the water. The hatchlings must get to the ocean quickly before dying from dehydration or predation. Once in the water, the young turtles swim out to sea and move with the ocean currents.

It is not known how long young sea turtles remain in the open ocean, or where they may go. It is theorized that they spend their earliest, most vulnerable years floating around the ocean in giant masses of seaweed. These areas are rich in food and provide hiding places that conceal juvenile turtles from predators. The young turtles drift there for a year or more until they reach a certain size or age at which time they return to nearshore waters.

Sea turtles grow slowly, taking between 15 and 50 years to reach reproductive maturity, depending on the species. The creatures are long-lived, possibly up to 100 years, although scientists

are uncertain exactly how long they live because there is no known way to determine their age.

Leatherback Sea Turtle - Endangered

The leatherback is the most ancient species of living sea turtle, as well as the largest turtle in the world. Adults can weigh anywhere between 700 and 2,000 pounds and measure from 4 to 8 feet long. The flipper span is enormous, about 9 feet on a 7-foot turtle. The leatherback is the only sea turtle that lacks a hard shell. Its shell is composed of a mosaic of small bones covered by firm, rubbery skin. The carapace (top shell) is mostly black with varying degrees of pale spotting, while the plastron (bottom shell) is whitish to black.

The paddle-like, clawless limbs are black with white margins and pale spotting. The turtle has a well-defined projection on each side of the upper jaw that is used to hold and cut soft-bodied prey, mainly jellyfish.

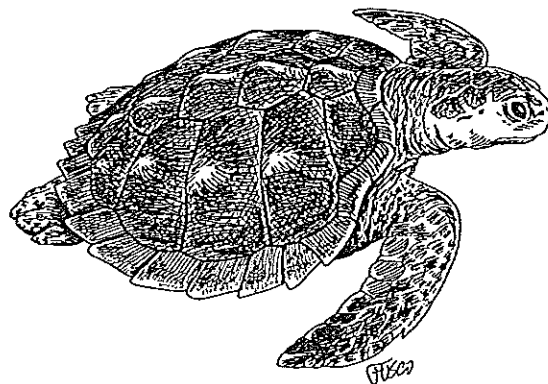
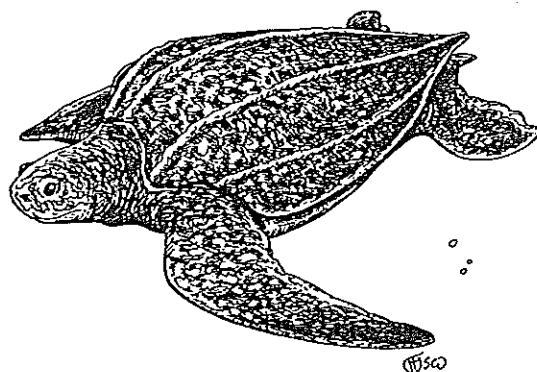
The leatherback has the extraordinary ability to maintain a warm body temperature in colder waters. It is the most pelagic (live in open ocean) of all sea turtles. Its large front flippers, body proportions, and streamlined shape are advantageous for long distance swimming.

The leatherback has the largest range of any reptile and is found around the world, except for the Arctic and Antarctic. In the U.S., this turtle nests mainly along the Florida coast. It may occur in concentrated numbers in the Northeast. Leatherbacks are frequently observed off Stonington and in Block Island Sound during summer.

The greatest threat to leatherbacks is from incidental take in commercial fisheries and marine pollution (such as balloons and plastic bags floating in the water, which are mistaken for jellyfish).

Kemp's Ridley Sea Turtle - Endangered

The Kemp's ridley, the rarest and most endangered of all sea turtles, is also the smallest, with adults reaching 20 to 28 inches long and weighing between 80 and 100 pounds. It



can be identified by a yellow plastron and broad, gray carapace, which is keeled and may be heart-shaped. The triangular gray head has a hooked beak. This turtle feeds on spider crabs, other hard-shelled sea animals (shrimp, snails), fish, jellyfish, squid, and occasionally marine plants.

Unlike most other sea turtle species, the Kemp's ridley nests primarily during the daytime. It only nests on a single stretch of protected beach in Rancho Nuevo, Mexico. Nesting adults are usually concentrated in the Gulf of Mexico, while juvenile turtles may extend along the Atlantic Coast of the U.S. Uncontrolled egg collection, predation, beach erosion, and drowning in shrimp trawler nets are the major causes of this species' decline.

Green Sea Turtle - Threatened

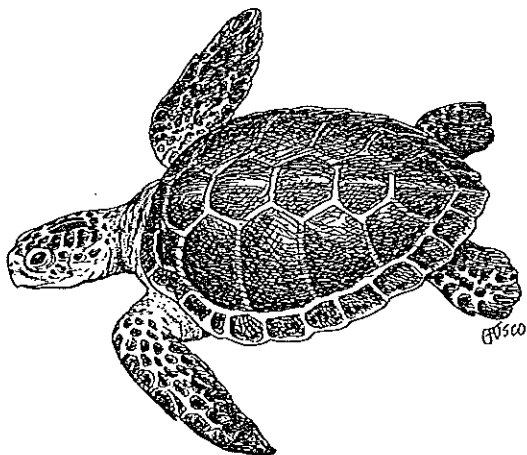
The green turtle lives in shallow ocean waters inside reefs and in bays and inlets throughout the tropical and subtropical Atlantic, Pacific, and Indian oceans.

Individuals can reach 4 feet long and weigh up to 400 pounds, although the average size is about 3 feet long and more than 250 pounds. Hatchling green turtles eat a variety of plants and animals, but adults feed almost exclusively on seagrass and algae. Though mostly brownish in color, this turtle gets its name from the color of its body fat, which is green from the algae and grasses it eats. A popular food source in some cultures, populations of this once abundant sea turtle have drastically declined.

A green turtle has never been found on the Connecticut shoreline to date. However, the species may occasionally migrate through Connecticut waters during the warmer months. Major nesting grounds are in Mexico, Costa Rica, Guyana, Suriname and Ares Island off Dominica, in the West Indies. In the U.S., small nesting populations occur on the eastern coast of Florida.

Loggerhead Sea Turtle - Threatened

Even though the loggerhead is the most abundant sea turtle species in New England waters, it is not commonly seen or documented in Connecticut waters. Adult loggerheads are 2.5 to 3.5 feet long and weigh 150 to 400 pounds. The turtle is readily identified by its reddish-brown carapace,



yellowish-brown plastron, and conspicuously large, block-like head. The skull is broad and massive, providing an anchor for the strong jaw muscles that are needed to crush shellfish, such as clams, and mussels. The turtle also eats jellyfish, sponges, shrimp, squid, barnacles, sea urchins, and occasionally seaweed. Loggerheads regularly nest on the U.S. Atlantic Coast, primarily in Florida. Although protected in the U.S., loggerhead turtles and eggs are hunted extensively in many parts of the world.

Threats to Sea Turtles

The decline in sea turtle populations throughout the world is attributed to a number of factors, including loss of nesting habitats; destruction of nests by predators and poachers; harvest of turtle eggs, meat, leather, and tortoise shell; and accidental killing by commercial fishing operations. Other threats that sea turtles face throughout their range, including New England waters and Long Island Sound, include:

- **Trash:** Discarded plastic bags, wrappers, helium balloons, styrofoam, and other plastic garbage that end up in the ocean can be deadly to sea turtles and other marine animals. These items, when floating in water, resemble food (such as jellyfish). When turtles mistakenly eat the plastic or balloons, their digestive systems become blocked and the turtles eventually die.
- **Fishing Equipment:** Turtles can become entangled in discarded monofilament fishing line and other gear, preventing them from reaching the surface to breathe or cutting into the animal and causing infection or possible loss of limbs.
- **Vessel Strikes:** Boat propellers, which often inflict serious wounds on sea turtles, have been responsible for many turtle deaths.
- **Pollution:** When pollution, such as oil spills and run-off of chemicals and fertilizers, kills aquatic plants and animals, it also reduces the amount of food that is available to sea turtles. Pollution also can cause the turtles to develop diseases.

What You Can Do to Help

- Properly dispose of or recycle plastic garbage, especially plastic bags.
- Never release helium balloons. It is against the law in Connecticut to release 10 or more balloons in a 24-hour period.
- Do not purchase illegal turtle products, such as leather and tortoise shell items.
- Properly dispose of fishing line and other fishing equipment. Monofilament fishing line recycling receptacles have been placed at several inland and coastal fishing locations, thanks to support from Connecticut's Endangered Species/Wildlife Income Tax Check-off Fund. Visit the DEEP Web site (www.ct.gov/deep/whatdoidowith) to obtain a list of recycling receptacle locations.
- If you locate a live, dead, or entangled sea turtle, contact Mystic Aquarium's 24-hour rescue hotline (860-572-5955 x107). Never attempt to rescue a live sea turtle on your own. If you notice an entangled sea turtle, please try to stay with it for as long as possible so Mystic Aquarium's rescue team can better locate it. (See article on page 16.)

You can learn about sea turtles and other native Connecticut turtles by visiting the Wildlife Division's "Year of the Turtle" Web page at www.ct.gov/deep/yearofturtle. To learn more about Mystic Aquarium's Animal Rescue Program, go to <http://mysticaquarium.org/animals-and-exhibits/animal-rescue-program>. Other good Web sites that provide information about sea turtles are: www.fws.gov (U.S. Fish and Wildlife Service), www.conserveturtles.org (Sea Turtle Conservancy), and www.seaturtle.org.

Herpetologist Dr. Michael Klemens Encourages Citizen Action on Behalf of Turtles and their Habitat

Throughout the 2011 Year of the Turtle awareness campaign, the Wildlife Division has been reaching out to Connecticut residents to better inform them about the plight of our native turtles and what people can do to help. One person who firmly believes that all citizens should take action in their own communities to conserve wildlife and their habitats is herpetologist and scientist Dr. Michael W. Klemens. Dr. Klemens received his doctorate in conservation biology and ecology at the University of Kent UK and has been on the staff of the American Museum of Natural History since 1979. He is the past director of the IUCN-World Conservation Union Global Turtle Recovery Program.

Dr. Klemens' career is founded on over three decades of herpetological research in the United States and Africa. This research has led him to the conclusion that in order to bring about tangible conservation results, scientific research cannot be conducted in a vacuum. Based on this conclusion, Dr. Klemens founded the Metropolitan Conservation Alliance (MCA) in 1997 to bridge the gap between conservation science and land use planning processes. Through MCA, he has translated biological data and conservation concepts into planning tools that achieve better conservation at local and regional scales. His efforts to integrate complex ecological data into the local land use decision-making process were recognized by the Connecticut Chapter of the American Planning Association in 2007. Dr. Klemens also has authored numerous publications pertaining to the distribution and conservation of herpetofauna, including *Amphibians & Reptiles of Connecticut & Adjacent Regions* (CT Natural History Survey Bulletin No. 112) in 1993. He strongly advocates that scientists have a responsibility to actively engage in conservation efforts. In this regard, he is currently serving as Chair of the Salisbury Planning and Zoning Commission; he previously served as Chair of the Planning Commission in Rye, New York, and continues to serve on numerous local, regional, and national steering committees and technical advisory boards.

Recently retired Wildlife Division biologist Julie Victoria, who knows Dr. Klemens both professionally and personally, asked him several questions related

to the Year of the Turtle.

Victoria: During the Year of the Turtle, *Connecticut Wildlife* readers have learned about many issues facing turtles, such as road mortality, illegal collection, and the introduction of non-native species. What do you see as the biggest issues facing Connecticut's turtles?

Klemens: Without a doubt, habitat fragmentation is the largest problem in Connecticut for all turtles. While this is a message of concern, it is also one of hope because there is a lot that can be done at the local level to reduce habitat fragmentation and help turtles on the landscape. This will be very important in the future as climate change forces species to readjust where they are living, based on the changing climate.

Victoria: What can people do?

Klemens: Get involved with what is happening to the land at the local level. Join the Planning and Zoning Commission, Conservation Commission, or Wetland Commission in town.

Victoria: What if someone isn't up to that challenge?

Klemens: Then they should go to some of the meetings of these Commissions and advocate for the intelligent application of development of the land. I don't mean saying "No" to all development, but many Connecticut towns use an old model of spreading development over large acres of land without considering clustering development.

People can discuss land use planning and assist with the conservation of Connecticut's biodiversity. They can advocate for a better Commission, a more informed Commission. There are a lot of resources out there, but Connecticut has outdated standards. For example, the Town of Barkhamsted redid its regulations to favor compact development and leaving landscapes together without fragmentation.

Did you know that each town has to update its plan of conservation and development every 10 years? This is a wonderful opportunity for someone to ask, "Are we managing the land to face the challenges of today and if not, what can we do?" The mission statements in many of these plans are great but there isn't a road map to show the town how to get there. Small changes can have big impacts. For example, in Barkhamsted,



K. RIMANY © 2011

clustering (an ecologically preferable development technique) was available within the town only by an extra level of permitting. As part of an overall study of watershed protection funded by the DEEP, the town recognized that it was discouraging smart development by this extra level of permitting and re-wrote regulations so that cluster development did not require more permitting hurdles than traditional development. So, I urge people to become a voice for smarter development and make it known that they are concerned about how land use decisions affect wildlife and the ecosystems that support all species.

Current regulations are not dealing with habitat. Every voice is important to create change and, if Commissions and elected officials hear large numbers of people saying the same thing, there can be a groundswell of difference. We hold the key in many communities for the survival of many species and we must encourage prudent decisions to be made for turtles and other wildlife as well. In the past, wildlife researchers have always approached conservation by studying the species, but that is not dealing with development pressure. That pressure can only be managed by modifying human behaviors and demands. Traditionally, Wetland Commissions were considered to be the only commission that could regulate

continued next page

wildlife. Recent court decisions have been quite clear that the authority of Wetland Commissions is quite limited in terms of wetland-dependent wildlife. However, Planning and Zoning Commissions have broad authority to address wildlife issues, provided that they assume that authority within their regulations. Towns, such as Salisbury, now have language in their planning and zoning regulations to consider wildlife, state-listed species, biotic corridors, and vernal pools in the decision-making process. The 2006 guidebook MCA Technical Paper Series No. 10, *From Planning to Action: Biodiversity Conservation in Connecticut Towns* has a 10-step Biodiversity Conservation Checklist and explains how Planning and Zoning Commissions have broad authority to look at these conservation issues but must adopt this authority.

Victoria: What else needs to be done?

Klemens: We need to manage landscapes to encourage biodiversity. Road mortality, which is a huge issue facing turtles, can be mitigated. It is a complex process, but when laying out new roads,

we need to understand the movement patterns of turtles and avoid severing those biotic corridors. This means that we need detailed information about species use before developments are designed. Also, there are opportunities to redevelop some areas to connect habitats.

We must challenge our officials to make better decisions, decisions that are informed by good data on wildlife. More funds need to be allocated for research on how to integrate the needs of species and their management on a landscape scale. There also needs to be follow-up monitoring of mitigation projects to see what the outcomes of mitigation were, specifically how well they worked. We are losing landscape integrity for many species. Again, people need to ask for that change and to know that there are resources available. There are 169 towns in Connecticut and it is very difficult to bring all the towns to the table, each town may have a different culture. As I said before, I don't mean saying "No" to development, but rather "How." We need to prioritize and compromise.

Victoria: What is the future for turtles in Connecticut?

Klemens: There are areas in the State with exemplary turtle populations that have huge value over the long-term. For instance, the future of turtles is going to rely on large, unfragmented areas that are a mosaic of protected areas and privately-owned lands. Priority conservation areas could be identified in regions of the State where turtle populations are robust, or one could take a species approach and identify the top five areas in the State essential for the survival of a key turtle species. Once priorities have been established, work intensively with those towns, as well as with citizen groups, schools, nature centers, and private property owners, to develop a stewardship plan. At the end of the Year of Turtle, are Connecticut turtles any better off? While the campaign may have built good will for turtles, we should be focusing on the proactive steps to take to ensure the survival of the five at-risk species (as well as sea turtles) in Connecticut. These are the spotted, bog, wood, and eastern box turtles, as well as the diamondback terrapin. I would encourage everyone to roll up their sleeves and make time for turtles.

Busy Mosquito Season in 2011

Written by Roger Wolfe, DEEP Wildlife Division

As the summer of 2011 waned, mosquito abundance and activity was at its peak. Mosquito populations and public health are monitored for the prevalence of mosquito-borne diseases like West Nile virus (WNV) and Eastern equine encephalitis (EEE) by Connecticut's Mosquito Management Program, a collaboration of the DEEP, Connecticut Agricultural Experiment Station (CAES), and the Department of Public Health (DPH), in conjunction with the Department of Agriculture and the Department of Pathobiology and Veterinary Science at UConn. The Program also provides technical assistance to municipalities, businesses, and residents on how to abate mosquitoes.

With the wet season experienced in New England this year, mosquito activity had been higher than normal. West Nile virus isolations had built steadily throughout the summer, and by the end of August the CAES had reported 132 WNV isolations in mosquitoes. Then Tropical Storm Irene hit just before Labor Day, with high winds and heavy rain that lasted several days.

This weather event temporarily broke the cycle because WNV isolations dropped off dramatically for several weeks after the storm. Although the storm may have tempered West Nile activity for a time, the resulting rain, combined with warm, humid conditions, created the perfect mosquito incubator. Areas, many of which are not normally flooded, produced a hatch of mosquitoes that Connecticut had not seen in many years.

By the end of October, the CAES lab had trapped and tested a record-shattering 332,000 mosquitoes, including a single trap with over 11,000 mosquitoes in one night! As expected, the majority of these mosquitoes were "flood water species," including high numbers of *Aedes vexans*, *Ochlerotatus trivittatus*, *Ochlerotatus canadensis*, and *Psorophora ferox*. Furthermore, with another month and a half of mosquito season left, WNV isolations started to climb again. By the end of the season, 163 isolations of WNV had been identified, mainly in lower Fairfield and New Haven Counties. Additionally, three

mosquito isolations of EEE were detected late in the summer. The DPH also reported nine human cases of WNV from mid-August to mid-September and a horse death in the town of Suffield.

Businesses, municipalities, and homeowners can prepare for next year's mosquito season by emptying or removing sources of stagnant water (containers, discarded tires, water in dumpsters) on their properties to eliminate mosquito breeding sites (mosquito larvae need a minimum of 5-7 days of standing water to develop). Products are available (containing the bacterium "Bti") that can be purchased in the spring and placed in wetlands and standing water areas around the home that cannot be eliminated. There also are a number of certified private applicators who are licensed to perform mosquito control. Refer to the Connecticut Mosquito Management Program Web site (www.ct.gov/mosquito) for weekly surveillance updates, mosquito ecology and control methods, a current list of certified applicators, and other helpful links.

2011 Spring Turkey Harvest & Hunter Survey

Written by Michael Gregonis, DEEP Wildlife Division

The spring wild turkey season continues to be very popular. Many sportsmen look forward to the opportunity and challenge of harvesting a wild turkey during spring. Connecticut's 2011 spring turkey season was open statewide and ran from April 27 to May 28. A total of 6,001 permits were issued and 1,424 birds were harvested. Eight hundred-and-seventy-one hunters harvested at least one turkey for a 14.5% statewide success rate. In addition, 286 hunters harvested two birds, 103 hunters harvested three birds, 15 hunters took four birds, and four hunters reported five birds. The harvest consisted of 790 adult males, 626 juvenile males, and eight bearded hens. Harvest increased by 17% from 2010; however permit issuance decreased by nearly 19%.

At least one turkey was harvested from 145 of Connecticut's 169 towns. Lebanon and Woodstock reported the highest harvest at 44 birds, followed by Pomfret (30 birds). State land hunters reported the highest harvest from Natchaug State Forest (29 birds), Cockaponset State Forest (20 birds), and Pachaug State Forest (12 birds). On a regional basis, the highest harvests were reported in wild turkey management zones 5 (257 birds), 1 (129 birds), and 2 (121 birds).

In general, the highest harvest occurs on opening day and Saturdays. The 2011 spring season was no exception as 17% (245 birds) of the total harvest occurred on the first day of the season and 25% (361 birds) occurred during the five Saturdays. It is expected that the majority of hunters had time off on these days, allowing them to enjoy recreational activities.

To provide a quality wild turkey hunting experience for Connecticut's junior hunters (ages 12 through 15), two Junior Turkey Hunter Training Days were held on April 16 and April 23. Youths harvested 52 turkeys during the two training days. The youth turkey hunter days have been well received by participants and mentors, as evidenced by the many positive comments on hunter surveys. The junior hunter training days are proving to be a great way to introduce youth hunters to spring wild turkey hunting.

Wild Turkey Hunter Survey

The spring wild turkey hunter survey is used to obtain a variety of information



Connecticut's spring wild turkey season continues to be popular with sportsmen. During the 2011 season, 6,001 permits were issued and 1,424 turkeys were harvested.

from hunters to better manage Connecticut's wild turkey resource. Several questions were included in the 2011 hunter survey regarding hunter interference, extension of hunting hours, opening a coyote season during the spring turkey season, and junior hunter training days. Fifteen percent of the respondents indicated that they encountered hunter interference during the season and, of these hunters, over 70% of the incidents occurred on state land. Eighty-two percent of respondents would favor extending daily hunting hours, 16% were opposed, and two percent had no opinion. The majority of hunters (84%) would like to be allowed to harvest coyotes during the spring turkey season, 14% were opposed, and two percent had no opinion. During the 2011 season, 1.2% of the survey respondents participated as junior hunters and 6.2% participated as mentors. Although these percentages may seem small, the junior hunter training days assist in recruiting new hunters and provide for a quality hunting experience.

Connecticut had experienced a declining turkey population from approximately 2005 to 2009. However, the turkey population has responded to good spring and summer weather conditions during 2010 and 2011. Brood indices for 2010 (3.6 poults/hen) and 2011 (2.8 poults/hen) were higher than the five-year average (2.4 poults/hen), indicating higher productivity for the past two years. The reported spring harvest in 2011 also indicated higher turkey productivity. The percentage of juvenile birds in the spring harvest is a good reference for turkey productivity. For example, during 2011, 44% of the total spring harvest consisted of juvenile birds, whereas only 27% and 18% of the total spring harvest were juvenile birds in 2009 and 2010, respectively. Based on the most recent brood index and the 2011 spring harvest, hunters should see good numbers of juvenile and more two-year-old birds during the 2012 season than they have seen in the past several years.

The 2009-2010 Turkey Program Summary is available on the DEEP Web site (www.ct.gov/deep/wildlife). It summarizes wild turkey information, including harvest statistics for the spring (2010) and fall (2009) hunting seasons. The 2010-2011 Turkey Program Summary will be published next year.

FROM THE FIELD



Great Backyard Bird Count Perfect for New Birders

The 15th annual Great Backyard Bird Count (GBBC) takes place on February 17-20, 2012. The event is hosted by Audubon, the Cornell Lab of Ornithology, and Canadian partner Bird Studies Canada. The results provide a snapshot of the whereabouts of more than 600 bird species.



PHOTO BY P. J. FUSCO

Anyone can participate in this free event and no registration is needed. All you have to do is watch and count birds for at least 15 minutes on any day of the count, during February 17-20, 2012. Enter your results at www.birdcount.org, where you can watch as the tallies grow across the continent. The four-day count typically records more than 10 million observations.

When thousands of people provide information about what birds they are seeing, researchers can detect patterns in how birds are faring from year to year. The 2011 GBBC brought in more than 92,000 bird checklists submitted by participants from across the U.S. and Canada. Altogether, bird watchers identified 596 species with 11.4 million bird observations. Connecticut participants submitted 1,677 checklists, reporting 116,074 birds of 136 different species.

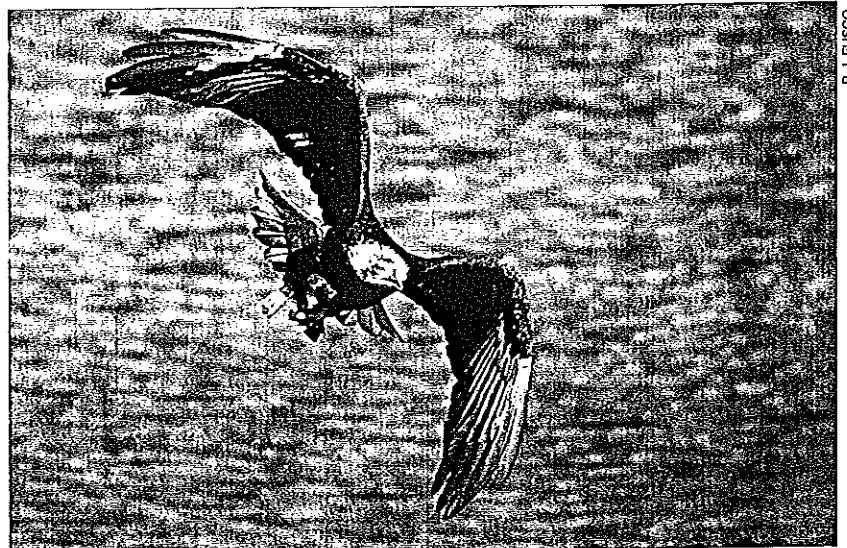
Although it's called the Great "Backyard" Bird Count, the count extends well beyond backyards. Lots of participants choose to head to national and state parks, nature centers, urban parks, nature trails, or nearby sanctuaries. For more information, including bird-ID tips, instructions, and past results, visit www.birdcount.org. The count also includes a photo contest and a prize drawing for participants who enter their bird checklists online.

The Great Backyard Bird Count is made possible, in part, by sponsor Wild Birds Unlimited.

2011 Midwinter Eagle Survey -- Volunteers Needed for 2012 Survey

The 2011 Midwinter Eagle Survey, which was held right after a snowstorm on January, yielded 104 bald eagles – four eagles shy of the 108 bald eagles counted in the 2010 survey. Some areas usually included in the survey, like Candlewood Lake, were completely frozen and, as a result, not surveyed. Other areas, like the Quinebaug and Shetucket Rivers, saw an increase in the number of volunteers from The Last Green Valley and 14 eagles were counted from these two rivers. The Connecticut River is still the location that attracts the most eagles, with 33 eagles counted, followed by the Housatonic River with 20 bald eagles seen.

The 2012 Midwinter Eagle Survey is scheduled for the four hour window of 7:00 AM–11:00 AM on Saturday, January 14. Coverage is always needed for Lake Waramaug, Bantam Lake, Laurel Reservoir, Ball Pond, Shenipsit Lake, Pocotopaug Lake, Mount Tom Pond, Williams Pond, Middle Bolton Lake, and Gorton Pond. Anyone interested in covering these areas or waterbodies near their home should send an E-mail to the Wildlife Division at dep.ctwildlife@ct.gov (put "Eagle Survey" in the subject line).



P. J. FUSCO

You can usually identify what state a banded eagle originates from by the color and number/letter sequence of the band. This red-banded bald eagle, photographed in Connecticut, was likely banded in Maine. Connecticut uses black leg bands.

New Contributing Editor for Inland Fisheries Division

Starting with the January/February 2011 issue of *Connecticut Wildlife*, George Babey, from the DEEP Inland Fisheries Division, took on the role of Contributing Editor for the magazine. After 25 years with the Division's Connecticut Aquatic Resources Education Program, George retired from state service this past October. The magazine staff would like to thank George for his input and assistance in expanding the content of *Connecticut Wildlife* and we wish him well in his retirement. The staff would also like to welcome the new Contributing Editor from the Inland Fisheries Division, Fisheries Biologist Tim Barry, who is based at the DEEP's Western District Headquarters in Harwinton. Tim wrote an article about the Atlantic salmon fishery for this issue (see page 10) and George submitted an article about the CARE Program (see page 11).

Attention Sportsmen: Say Thank You to Private Landowners with a Gift of Connecticut Wildlife!

A gift subscription to *Connecticut Wildlife* magazine is the perfect way to extend your appreciation to private landowners for allowing you to hunt or fish on their property. It's a gift that gives year round! Fill out the coupon on the next page to order a subscription. We'll take care of the rest, including sending a card to notify the recipient of your gift.

Calendar of Events

Programs at the Sessions Woods Conservation Education Center

Programs are a cooperative venture between the Wildlife Division and the Friends of Sessions Woods. Please pre-register by calling 860-675-8130 (Mon.-Fri., 8:30 AM-4:30 PM). Programs are free unless noted. An adult must accompany children under 12 years old. No pets allowed! Sessions Woods is located at 341 Millford St. (Route 69) in Burlington.

- Jan. 22..... **Turkey Tails & Horsehooves**, starting at 1:30 PM. Join Master Wildlife Conservationist Jack Nelson for an exploration into the world of bracket fungi. Following an introduction indoors, Jack will lead participants on an outside tour to view and identify the interesting woody fungi found on the trees along the trails at Sessions Woods. The program will begin in the large meeting room inside the Conservation Education Center. The exhibit area will be open for viewing prior to the program.
- Feb. 22..... **Wildlife Tracks & Sign for Kids**, starting at 10:00 AM. Wildlife may not be readily seen in winter, but with good observation skills, evidence of their presence can be found. Learn about wildlife tracks indoors with Natural Resource Educator Laura Rogers-Castro and then head outside for a short walk to look for animal signs. Children also will make a wildlife track to take home. An adult must accompany all children.
- Feb. 26..... **Bluebirds with Master Wildlife Conservationist Fred Lowman**, starting at 1:30 PM. MWC Fred Lowman has been monitoring bluebird nest boxes on his property for several years. This indoor program will provide an informative discussion on bluebirds as Fred shares his success stories. He also will provide tips for getting bluebirds to nest in your backyard.

Shepaug Bald Eagle Observation Area to Open on December 28

The Shepaug Bald Eagle Observation Area, in Southbury, opens for its 27th season on December 28, 2011. The Observation Area is run by FirstLight Power Resources, a GDF SUEZ Energy North America company, which owns and operates several hydroelectric facilities along the Housatonic River. Observation times are Wednesdays, Saturdays, and Sundays between 9:00 AM and 1:00 PM from Wednesday, December 28, 2011, through Wednesday, March 14, 2012. The Observation Area will be closed on New Year's Day. Although admission is free-of-charge, advance reservations are required and will be taken beginning on Tuesday, December 6. To make reservations for individuals, families, and groups, call toll-free at 1-800-368-8954 between 9:00 AM and 3:00 PM on Tuesdays through Fridays.

The Shepaug Observation Area is one of the top eagle viewing areas in New England. It is a popular spot for eagles in winter when the turbulence below the dam keeps the water from freezing, and the fish below the dam provide a ready food source. Specialists will be on site with high-powered telescopes to help visitors see the eagles in action and to answer questions. Visitors are encouraged to dress warmly because the observation area is unheated and to bring binoculars, if possible, given the limited number of on-site telescopes.

Wood Heat

continued from page 3

Selecting a Wood Stove

Wood smoke can be a source of air pollution, so it is best to use a wood stove that has been certified by the Environmental Protection Agency (EPA). An EPA-certified stove has been independently tested by an accredited laboratory

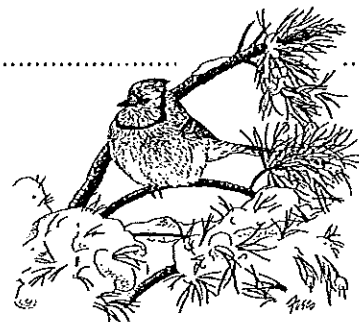
to meet particulate emission standards. Compared to pre-1990 stoves, EPA-certified models burn one-third less wood for the same amount of heat and produce 70% less particulate pollution. For more information, go to www.epa.gov/burn-wise/woodstoves.html.

There's an old saw (bad pun) that burning wood heats you twice; once when you cut it, and once when you

burn it. That is true, but it's also true that when wood is harvested and seasoned properly, and burned in an efficient and safe heating unit, it is an economical fuel from a renewable resource. Plus, burning wood helps Connecticut be more energy independent.

For more information about Division of Forestry programs, go to www.ct.gov/deep/forestry.

Connecticut Wildlife



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Connecticut Wildlife

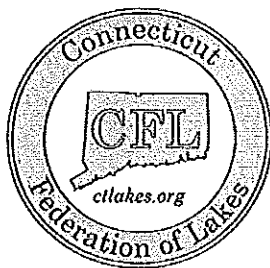
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Bald eagles can frequently be found along Connecticut's major rivers in the winter months.



CFL News

Volume 16, Issue 2—December 2011

2012 Membership Drive

Your membership dues and tax-deductible donations help CFL to provide educational information to our members through our website, conferences and special mailings of books and magazines. We appreciate and need your ongoing support.

Act now to join or renew your membership in the CFL with the application found in this newsletter.

We appreciate your support of the Connecticut Federation of Lakes in 2012.

INSIDE THIS ISSUE

- 2** Rogers Lake Property Owners vs. Old Lyme
- 3** Invasive Investigators Update
- 4** Flood Insurance Rate Maps
CLA's Zebra Mussel Task Force
- 5** CAES Study of Invasive Aquatic Plants in CT

President's Message

Whatever Happened to Connecticut's Lakes Grant Program?

In 1987 Section 22a-339a of the CT General Statutes was passed creating "Grants to Improve Water Quality of Lakes Used for Public Recreation." More commonly called the CT Lakes Grant Program it can provide matching grants for lake restoration studies and projects at lakes that have public access. Funds for the program are to be used to abate lake eutrophication by conducting diagnostic studies and then developing and implementing restoration projects.

Types of projects funded in the past include dredging, algae control, stormwater infrastructure improvements and aquatic weed control. As described in the Statutes, the funds are provided to municipalities, lake authorities, and lake taxing districts at lakes that are available to the general public for recreation. The Lakes Grant Program requires a 25% match for studies and a 50% match for implementation of control measures. Some noteworthy projects funded through this program included:

- A dredging project at Keney Park Pond
- Water quality monitoring (including aquatic plants) at Hatch Pond, Moodus Reservoir, Beseck Lake, and Bashan Lake among others.
- A watershed study and shoreline buffer guidelines at Candlewood Lake
- A stormwater infrastructure project at Birge Pond
- A pilot suction harvesting project at Crystal Lake

In addition to providing funds for worthy projects, the grant program also provided the State with vital information on the health of these important inland water resources.

Funds for the CT Lakes Grant Program were made available from time to time through their authorization by the State Legislature and allocation by the State Bond Commission. Since 1999 over \$2 million dollars have been authorized by the legislature. Notwithstanding some of the important projects that have resulted from the program, much of those funds were never allocated by the State Bonding Commission and eventually were rescinded by the Legislature. There were, however, \$688 thousand dollars authorized in 2007 that, although not yet allocated by the State Bond Commission, have not been rescinded.

I recently had the opportunity to speak with State Senator Andrew Roraback (30th District) and State Representative Clark Chapin (67th District) about having those funds allocated by the Bond Commission. Both emphasized to me that the Governor sets the agenda of the Bond Commission. Senator Roraback, who sits on the Commission and is a Ranking Minority Member of the Legislature's Finance, Revenue, and Bonding Committee, went as far as to express his support of allocating those funds, while reeling off the names of numerous lakes in his district.

So... what can we do to see to it that those and future funds become available to do the important work of fixing our lakes?

1. If the Governor sets the agenda, then the Governor needs to know that this program is important and the funds need to be on the agenda. Make Governor Malloy aware with your calls, letters or emails. To contact him, go to www.ct.gov and click on the picture of the Governor in the top right corner. That will bring you to a webpage with information on how to contact him.
2. Inform your State legislators that you need their support so they can convey it to the Governor and members of the Bond Commission. Some of those, like Senator Roraback may sit on the Commission. To find your legislators, go to www.cga.ct.gov and hold your cursor over House and then Senate and follow the prompts. To see who is on the Commission, see www.ct.gov/opm/cwp/view.asp?a=3010&Q=382918.

Let's see if we can make the Lakes Grant Program an important part of lake protection and management in Connecticut again.

Season's Greetings,

Larry Marsicano

CFL President



Rogers Lake Property Owners vs. Old Lyme

By Bruce Fletcher

Property owners who don't live year-round on the lake are suing the Town of Old Lyme for the unlawful prohibition of occupying and using their property between November 30 and March 15. They feel deprived of "their rights, privileges and immunities" under Connecticut and U.S. law. Unless their properties fail to meet all health codes and building codes, they believe use of their properties year-round is legal. They maintain that this prohibition has "a negative impact on the Plaintiffs' use and enjoyment of their property, including difficulty in obtaining credit using the properties as collateral, loss of use of the land for the time between November 30 and March 15, diminution in the market value of the properties, and excessive property tax assessments which value the land based on year-round use even though the property owners do not have a right to year-round use of the property or access to government services during the off season". Since they believe this prohibition is a violation of "Connecticut General Statutes Section 8-2 and 8-2h(a), of the Fifth and/or Fourteenth Amendment to the United States Constitution, and of Article First, Sections 1, 8 and/or 10 of the Connecticut Constitution," the property owners want this prohibition repealed as well as "compensatory damages, exemplary or punitive damages as provided by law, reasonable attorney's fees and costs as provided by law, and such other relief as the Court may deem just and proper." The Plaintiffs demanded a jury trial. This case is all but settled in favor of the Rogers Lake property owners; Old Lyme has lost.

Some information came from complaint filed in US District Court November 29, 2010.

Editorial Reaction by Bruce Fletcher

I don't know how many lake communities have fought this same issue. Is this repeal of seasonal limits a legal precedent-setting breakthrough for property owners in Connecticut? Will this lawsuit victory mean more lakes will suffer from more people living near the water and "polluting" their water? Unless lake associations, towns, the DEEP, and the DPH (public health) demand and require and enforce lake smart living compliance, the water quality and recreational desirability of lakes will decline.

Maybe this new reality of more year-round usage of code compliant properties will spur more lake smart property regulations and ordinances, better enforcement, more pressure for decentralized wastewater management districts or ultimately city sewer systems. All lake stakeholders must be ready to be personally more lake smart and/or push these policy changes. You can do your part by taking the CFL LakeSmart Pledge and making your property a "LakeSmart Home" (details on ctlakes.com).



Invasive Investigators Update and Beyond

By Bruce Fletcher

Did you receive training in 2011? Did you see any Invasive Investigators (IIs) at your state boat launch area? Gwendolynn Flynn of the DEEP's Boating Division (860-447-4339 or gwendolynn.flynn@ct.gov) trained 80 plus volunteers in 2011. The CFL applauds this program, and hopes more volunteers will take the 4 hour training in 2012. Since the spread of aquatic invasives and the cost of weed management are such major problems, it is very important that all stakeholders get involved. While the DEEP has a staff of 21 paid Boating Education Assistants (BEAs) who since 2003 have monitored the state's 114 public boat launches, the BEAs and the 80 scattered volunteers can not adequately monitor all the launches even minimally. Hopefully, the DEEP will fund more BEAs and train more volunteer IIs because the cost of prevention is a lot less than the cost of control. Maybe some day soon Connecticut will charge at registration renewal time every freshwater boater an invasive weed control fee. This dedicated fund could be used to fund more BEAs, more public education, more full time supervi-

sion of launches, and rapid responses to new infestations.

Rather than depend on an occasional visit to your launch by a BEA or an Invasive Investigator (II), aggressive, pro-active lake associations could set up their own seasonal "lake watch" program much like a residential Neighborhood Watch. Lake associations could pay trained IIs to monitor their boat launches and interact with the visiting boaters just as they were trained by Gwendolynn Flynn of the DEEP. Though working at a state owned public boat launch area, these IIs would not be covered by any state insurance policy nor would they be covered by their lake association's liability insurance. These employees would hold harmless the lake association (their employer) and the state. To date the IIs have found talking with the boaters to be pleasant and friendly. Since IIs always ask permission to chat with the boaters coming and going about invasives and to obtain their consent to do an inspection for weeds, these interactions are always cordial and non-confrontational. The majority of boaters are quite knowledgeable about invasives, and usually are as equally concerned as lake property owners. Since the IIs have no enforcement authority, they can only quietly report possible violators to the local police or conservation officers who would eventually investigate and issue warnings or fines.

The advantages of having a paid staff of IIs include the full time distribution of educational information about aquatic invasives, the "constant" checking for invasive weed hitchhikers on boats and trailers as they enter and leave, the regular collection of information about where the boaters have been previously and where they are going next, and how they have cleaned their boats and trailers before entering the next lake or river. Much of this information is forwarded to the DEEP for their planning purposes and needs assessment work. Most importantly, the biggest benefit that your lake will have is three fold - fewer invasives, lower weed management costs, and a lake with enhanced recreational desirability. It is well accepted that superior recreational desirability is worth thousands and thousands of dollars in property value.



Flood Insurance Rate Maps

by Richard Canavan and Jeff Stefanik

The Federal Emergency Management Agency (FEMA) maps floodplains including maps called Flood Insurance Rate Maps (FIRMs). These maps are periodically updated by FEMA to account for changes in flows that result from changes in a watershed. Flood Insurance Mapping is used by lending and insurance companies to determine if homeowners must maintain a flood insurance policy. Flood insurance can be expensive. Financial institutions are more frequently requiring flood insurance either due to revisions in mapping or a more conservative approach to buildings near flood zones. Often an institution places the burden on the home owner to prove that the building is outside of the flood zone.

This stricter policy is followed in virtually all new home purchases near a water body and even in the refinancing of homes already owned. As an example, someone could have bought their home twenty years ago and never been required to have flood insurance nor has ever had a flooding problem but would now be required to obtain a flood insurance policy, the cost of which could be several thousand dollars each year.

The insurance requirement can be waived only by FEMA through an application process known as a Letter of Map Amendment (LOMA). The LOMA consists of a survey of the subject property and submission of the application and required supporting data to FEMA who will render a decision in regard to the location of the existing structure or building and whether it is located in the flood hazard area. The LOMA must be signed and sealed by a licensed land surveyor, registered professional engineer or architect authorized by law to certify elevation information. The process takes approximately eight weeks to have a decision rendered. Most properties that are not prone to flooding can successfully avoid flood insurance requirements by obtaining a LOMA.

Several on-line versions of FEMA's Flood Insurance Rate Mapping are available at the FEMA map service center, www.msc.fema.gov, including the MapViewer-Web which allows you to type in an address. Although it is uncommon, if your home is frequently flooded by a lake or stream FEMA offers programs to help reduce future losses in their Hazard Mitigation Assistance (HMA) program.

CLA's Zebra Mussel Task Force Releases... Interim Report on Findings and Recommendations

The Candlewood Lake Authority (CLA) recently made available on its website the *Interim Report on the Findings & Recommendations of the Candlewood Lake Authority Zebra Mussel Task Force for the Prevention of Introduction and Control of Zebra Mussels (*Dreissena polymorpha*) at Lakes Candlewood, Lillinonah & Zoar*. The report provides an overview of this Task Force's process and goals, background information on zebra mussels, and a number of recommendations to prevent further spread of the exotic nuisance mollusk now found at five lakes in Connecticut.

In the fall of 2010 the CT DEEP issued a press release notifying the public that zebra mussels had been found in Lakes Lillinonah and Zoar. In the previous year, this invasive animal species had been found in Laurel Lake in Lee, MA, in Laurel Brook which drains from Laurel Lake, and in the Housatonic River below the confluence with Laurel Brook. In 2011, CT DEEP issued another press release stating that zebra mussels were now in Lake Housatonic. It is surmised that the zebra mussel populations in Lillinonah and Zoar may be the result of upstream recruitment from the populations in the Housatonic River in MA and from Laurel Lake. Prior to that the only other known populations in either state were located at East Twin and West Twin Lakes in Salisbury, CT which were documented in 1998 and 2001, respectively.

After learning of the recent spread to Lillinonah and Zoar, the CLA formed a Task Force in November of 2010 to better understand the issue and develop recommendations to prevent further spread. Task Force members, which so far have met six times starting in December of 2010, include representatives from the Lake Authorities on Candlewood, Lillinonah and Zoar, the CT DEEP, the Friends of the Lake organization (on Lake Lillinonah), the Housatonic Valley Association, the Connecticut Bass Federation Nation, FirstLight Power Resources (who owns the lakes which are part of a hydroelectric facility), Western Connecticut State University, and other members from the Candlewood community with interest in the issue.

The Task Force's recommendations fell into one of five groups: education and outreach, prevention and con-

tainment, early detection and monitoring, legislation, and funding. Many recommendations have already been implemented including the development and dissemination of educational materials and signage, promotion of the CT DEEP's Invasive Investigator program, and monitoring programs. The CT DEEP, FirstLight Power and the Task Force have implemented monitoring programs throughout the Housatonic River watershed for either adult zebra mussels and/or the microscopic and planktonic larval life-stage, referred to as veligers. Although there are analyses still to complete on samples collected this season, veligers have already been observed in the Housatonic River in CT as well as in Lake Zoar.



Connecticut Agricultural Experiment Station (CAES) finishes 8th year of studying the problem of INVASIVE AQUATIC PLANTS in Connecticut lakes and ponds.

Over the past eight years the CAES Invasive Aquatic Survey program has gathered valuable information on the spread of these non native plants in Connecticut. The findings from these surveys are of great value to Connecticut lake and pond communities.

The following is an Associated Press story about the CAES Invasive Aquatic Plant program under Mr. Greg Bugbee. Also below see the list of lakes and ponds that have been surveyed by Bugbee's team of scientists.

Go to Connecticut Agricultural Experiment Station web site www.ct.gov/caes and click on Invasive Aquatic Plants and fill out a form requesting adding your lake or pond to the list for a CAES survey in 2012.

PLANT PATROL:

On alert for alien invaders

Published: Monday, August 29, 2011

SOUTHBURY (AP) — Off the bow of Greg Bugbee's 18-foot boat floats what looks like a four-leaf clover, the water shamrock slowly drifts closer to the side, a bright green above the silty waters of Lake Zoar. It's a sign, but it's not good luck.

Water shamrocks are an invasive plant species, exactly what Bugbee is looking for. "It hasn't really shown

to be a major nuisance yet," Bugbee says as he fishes the shamrock out from the port side. "Either way, it's a non-native species which you don't want affecting your native ecosystems. We were the first to find it a few years ago and I don't know why these pieces are floating around here, so we'll have to take a closer look."

For every summer since 2003, Bugbee's boat has been his office for his work as a biologist with the Connecticut Agricultural Experiment Station, scouring the state's watercourses for alien plants. Although the state's Department of Energy and Environmental Protection started a new initiative earlier this month to gather volunteers to hunt for alien plants, Bugbee works full-time spotting dozens without referring to a manual.

Rain or shine, Bugbee, who has worked for the state since the late 1970s, is out searching for most of August and early September, cataloging his finds with an onboard GPS computer and later mapping them back at the laboratory. He is part of a team of six researchers that is the state's first line of defense against the pests. The team is frequently contracted by companies like FirstLight Power Resources to search for the invasives.

Bugbee pulls the boat closer to shore in a shallow area using a canoe paddle and standing like a Venetian gondola oarsman. He flips on his polarized sunglasses to peer beneath the waters, but it's still too murky. Even if something was there, though, it could prove tricky to identify. "Some aren't as easy to just see," he said. "You have to go back to look at them under microscope. Sometimes we have to do DNA sequencing just to make sure they are what we think they are."

Invasive plants can sometimes crowd out native plants, threatening food sources or habitats for fish and insects. If the invading plants have no natural competitors, they can grow without control, damaging ecosystems beyond human help.

"The big part of this is biological diversity," said Donna Ellis, a researcher and educator with the Department of Plant Science and Landscape Architecture at the University of Connecticut. "If there are no natural enemies, there's no way to stop the spread, and that's a problem."

This year's growth of invasive plants at first look isn't as bad as previous years, according to Bugbee, but the reason remains elusive to scientists. If the data the

team collects this year show growth was stifled by a colder winter, scientists may be able to mimic conditions in some areas to stop the plants from spreading, he said.

The data are inconclusive. Many of the species enter the state's waters by accident.

Fish owners sometimes dump their aquariums into the lakes assuming they're doing the "right thing by freeing the fish," Bugbee said, but often times plants growing inside the tanks are not native to the area. The state Department of Energy and Environmental Protection has started its own team to begin searching pet stores, aquarium shops and water garden providers to begin cracking down on sales of mislabeled plants to stop the spread.

"Sometimes we'll get out there and it won't be an invasive species, let alone a plant," Bugbee said. "It may be an algae or something native. It's important to look, though, because if someone wants to use a chemical to control it and it's misidentified, they're going to waste a lot of money." The work is part ecological study and part property defense.

While some residents Bugbee meets as he navigates in and out of boat docks share his concerns about the environment, others are simply happy to see someone removing Eurasian milfoil, a weed that sometimes grows to close to 10 feet in length.

Bob Barnes, chairman of the Lake Zoar Authority, said the milfoil alone has spread to between 90 and 95 acres of the lake in recent years. Home buyers won't purchase a house on the lake if they can see the water is full of the weed.

"We've had all kinds of issues with people getting weeds tangled in their jet-skis and wrapped around propellers," Barnes said. "If you're looking to buy a house and there's a disgusting amount of weeds, you're not going to want that. What's the point if you can't get in and out of the water?"

Although some boaters kid him about his job, spending 10 hours on summer days scouring lakes as the ideal job, Bugbee said it's hard for his team to process all the information during the winter months before they start anew the following year.

"I'm out here no matter what the weather is for the most part," Bugbee said. "Either way, it beats having a desk job."

Lakes/ponds surveyed by CAES in 2011

The following are the lists of Connecticut lakes/ponds surveyed by the CAES in 2011.

At different depths ranging from .1 feet to 16 feet in each of these waterbodies the CAES collected information on light availability, sediment organic content, bottom slope, depth, and plant species.

Survey maps, water chemistry and other information will be available on the CAES web site shortly. Call Greg Bugbee (203) 974-8512 or email gregory.bugbee@ct.gov with questions.

Lakes/Pond where CAES reports are soon to be completed:

Alexander Lake - Killingly
Anni's Pond (Kleeman's Dam) - Bethany
Beseck Lake - Middlefield
Billings Lake - North Stonington
Black Pond - Middlefield
Bolton Lower - Bolton
Cedar Lake - Chester
Crystal Lake - Ellington
Gardner Lake - Bozrah, Montville, Salem
Lake Elise - Middlebury
Lake Hayward - East Haddam
Lake Quonnipaug - Guilford
Messerschmitt Pond - Deep River, Essex
Moosup Pond - Plainfield
Pattaganset Lake - East Lyme
Quaddick Reservoir - Thompson
Rogers Lake - Lyme, Old Lyme
Tyler Lake - Goshen
West Lake - Guilford
West Hill Pond - New Hartford, Barkhamsted
West Side Pond - Goshen
Wintergreen Lake - Hamden

Lakes/Ponds where Aquatic Plant Surveys have been completed in 2011.

Anne's Pond (Kleeman's Dam) - Bethany
Beseck Lake - Middletown
Bolton Notch Pond, Bolton
Bunnells Pond - Bridgeport
Bushy Pond, Clinton
Candlewood Lake - Danbury, New Milford, Sherman
Crystal Lake - Middletown
Doaneville Pond, Norwalk
Grannis Lake - East Haven
Held Pond - Weston

Fence Rock Lake - Guilford
 Lake Brandegee - Waterford
 Lake Elise - Middlebury
 Lake Lillinonah - Monroe etc.
 Lake Quassapaug - Middlebury
 Lake Zoar (transects and water samples only)
 Larkin Pond - Middlebury
 Lower Bolton Lake - Bolton
 One Acre Pond - Madison
 Pinewood Lake - Trumbull
 Private Pond - Pawcatuck
 Putnam Park Pond - Easton
 Scribner Pond - Norwalk
 Squantz Pond, New Fairfield

Also the CAES has begun re-surveying lakes originally surveyed 5 or more years ago to determine the changes. In some cases the increase in invasive aquatic species is dramatic. For example the re-survey of Cedar Lake in Chester showed an increase in the acreage of *Cabomba caroliniana* from 2004 to 2010.



-- Classifieds --

Lake Weed Harvester for Sale

Inland Lake Harvester Model LH6-250 in excellent condition. Only 830 hours of use. Expertly maintained. Includes trailer.

This is one of the finest weed harvesters made. This unit is easily transportable over land with its own trailer. No need for over wide permits. Excellent for smaller bodies of water and contracting. This diesel powered vehicle, has a 6 ft. wide cut and holds 250 cu. ft of weeds. It is big enough to cut a large area, yet small enough for the tight coves.

Please contact: david@zwang.com



About the Connecticut Federation of Lakes

Everyone agrees that healthy lakes are highly valued natural assets whose beauty and recreational offerings make them irresistible to so many each season of the year. Towns with attractive lakes annually collect higher property tax revenues and benefit each year from months of "trickle down economics". These precious resources are fragile, and need constant monitoring

and preventive and corrective programs. So it is no wonder that individuals, families, lake associations, towns and states proactively work to help their lakes and recognize that unprotected lakes may become damaged beyond repair.

The Connecticut Federation of Lakes (CFL) was formed in 1995 to help individuals, steering committees and established lake associations with needed guidance, advice and support. In addition, the CFL fosters an alliance of Connecticut's many pond and lake protective organizations so that Connecticut lakes can speak with a unified voice.

The CFL board members are dedicated volunteers who have first hand experience in dealing with lake and association issues. Since some board members are professional lake managers and others have masters & doctorate credentials in the science of limnology, the CFL can and does help. Recently the CFL helped pass legislation geared to curb the establishment of invasive aquatic plants in Connecticut. Boat launch monitoring, on site waste water management guidelines, and model municipal regulations and ordinances for watershed protection are current initiatives.

The CFL publishes newsletters for members full of technical information, lake profiles, management tips and news from the DEEP. Chuck Lee of the DEEP, an environmental analyst in the Bureau of Water Protection and Land Reuse, 860-424-3716, attends all the CFL Board meetings. The CFL works with the Governor to designate the annual Lakes Awareness Week and hosts educational conferences for CFL members and friends. In addition the CFL is an active full participant in NEC-NALMS (the New England Chapter of the North American Lake Management Society). We participate in their programs annually and host the 3 day conference on a rotating basis.

Lakes in Connecticut need to receive more preventive medicine. In other New England states the citizenry and legislators have pushed through bigger and better programs for lakes. If you treasure your lake, please join the CFL. With your help the CFL will continue to make a difference locally and statewide.



Contact the CFL

For more information regarding the Connecticut Federation of Lakes, visit our web site at www.ctlakes.org, contact Penny@Ctlakes.org, or write to P.O. Box 216, Windsor, CT 06095.



CFL Board

Larry Marsicano, President – Candlewood Lake
George Knoecklein, Vice President – Limnologist
Penny Hermann, Secretary, – Lake Williams
George Walker, Treasurer - Lake Lillinonah
George Benson
John Burrell, -Columbia Lake
Richard Canavan – Limnologist
Mary Ellen Diluzio - Bashan Lake
Bruce Fletcher – Bashan Lake
Bruce Lockhart, - Certified Lake Manager
Chris Mayne, - Certified Lake Manager
Tom McGowan, - Lake Waramaug
Connie Trolle – Bantam Lake

Newsletter Committee

The Newsletter Committee welcomes your input and your articles. Please send suggestions or articles to CFL, P.O. Box 216, Windsor, CT 06095 or e-mail to Penny@Ctlakes.org.

The newsletter committee includes:

Bruce Fletcher
Penny Hermann
George Knoecklein
Larry Marsicano

Calendar

Upcoming Board Meetings – 3rd Wednesday of January, March, April, May, June, September, and October 7PM at Northeast Utilities, Newington, CT

CFL Application - 2012

Yes! I want to be a member of the CFL!

(Please make check payable to Connecticut Federation of Lakes)

- ☐ Individual (\$25/year)
☐ Lifetime - for individuals only (\$500)
☐ Lake Association (\$150/year)
☐ Tax Deductible Donation

Name _____

Address _____

Telephone _____

e-mail _____

Lake _____

Whom may we thank for your referral?

Mail to: CFL, P.O. Box 216, Windsor, CT 06095

David Morse & Joan Joffe Hall
64 Birchwood Hts.
Storrs, Connecticut 06268

27 December 2011

Dear members of the Mansfield Conservation Commission:

This letter to apprise you of our efforts as customers of Connecticut Water Co. to obtain information as to whether our local water distribution system falls under the purview of those laws and regulations that govern public water elsewhere. That's the substance of a letter we addressed to Attorney General George Jepsen, dated 21 September 2011. (Please see attached.)

In subsequent phone exchanges with the Attorney General's office, we learned that our query was forwarded first to the A.G.'s Environment Protection office, given a File # 401017, and then ended up with the Health and Education Dept. Our correspondent, Cindy, was to get back to us. In a phone call earlier this month she explained that the A.G. did not offer rulings in response to inquiries from the public.

We feel a bit stymied. As customers of Connecticut Water Co. and citizens of Mansfield, we don't know whether our watershed and distribution system is afforded the same oversight, protections, and public governance that protect other systems. The situation seems murky and poorly understood by town authorities. The need for clarification is of special concern in light of (1) UConn's refusal last February to provide water for an assisted-living center in town, and (2) as UConn and/or the Town of Mansfield seek to expand the water supply to accommodate increased demand from the proposed industrial park and for development at Four Corners.

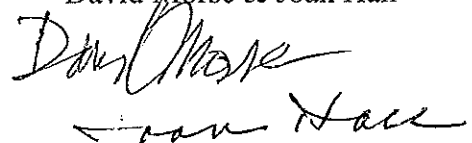
In addition, Mansfield, Coventry and Tolland have received a grant to coordinate regional development. Necessarily this will include cooperation around water resources. It is vital for planning purposes to determine whether any such expansion effort is undertaken in an environmentally and responsible manner, and whether Connecticut Water Co. is operating within the body of law that governs water companies.

Knowing that the Conservation Commission is charged with advising the Mansfield Town Council and the Planning and Zoning commission on issues pertaining to the development, conservation, supervision and regulation of water resources, we raise this concern with you and ask that this letter and the attached letter to the Attorney General become part of the public record.

Thank you for your consideration. We hope the issue can be resolved soon.

Sincerely,
David Morse & Joan Hall

Cc: Linda Painter, Director Planning & Development

Handwritten signatures of David Morse and Joan Hall. The signature of David Morse is written in dark ink and is more prominent. Below it, the signature of Joan Hall is written in a lighter, more cursive style.

David Morse & Joan Joffe Hall

64 Birchwood Hts.
Storrs, Connecticut 06268

21 September 2011

George Jepsen, Attorney General
State of Connecticut
55 Elm St.
Hartford, CT 06106

Dear Attorney General Jepsen,

As you can see from the enclosed receipt, we live in Storrs, and are paying customers of Connecticut Water, Inc.

In your capacity as protector of the public interest, could you please give us a list of the drinking-water watershed land-protection statutes that, in the wake of Formal Opinion 2000-032, CT Water is required by law to follow?

I ask for this enumeration because we pay for a drinking-water product and would like to see, in writing, that our water is produced and protected in accordance with the same laws governing all other large drinking-water producers in Connecticut.

Thank you.

Sincerely,

David Morse and Joan Hall